A UNITED STATES DEPARTMENT OF COMMERCE PUBLICATION

Incorporating *International Commerce*

JANUARY 10, 1972

Commerce Today

Coming Developments in Business and Technology

U.S. Economy To Score Sharp Gains In 1972

Exploring Trade Prospects In The Soviet Union

Surging Industrial Water Use Spurs Special Equipment Sales

FROM THE SECRETARY

The Signals Are 'Go' In 1972

It is easy to predict with confidence that 1972 will be a banner year. All the signals are go!

Economically, the foundation has been laid by all of the dramatic events since last August 15—wage-price freeze, Phase Two, monetary revaluation—for a healthy expansion of productivity and consumer confidence, and for continued improvement in the employment picture, in 1972.

It promises to be, as the President has forecast, not just a good year, but a great year for America.

Investments

Because of the economic upswing now foreseen by responsible economists, the time for new capital investment in American enterprise has never been better.

The Job Development Credit, signed into law by the President last month, will provide a 7 percent tax credit on most capital investments. This will stimulate production of machine tools and other equipment, accelerate the building of plants, and ultimately create half a million new jobs, all adding $15 billion to the Gross National Product.

Confidence

Business already is demonstrating a renewed confidence in the economy by its increased plans for new plant and equipment—expected to be up by 9 percent during the first six months of 1972, compared with the same period in 1971. With the added incentive of the Job Development Credit, industry is taking a closer look at the need to replace obsolete equipment with the most advanced technology.

The Credit offers a great opportunity to modernize, to reduce costs, and increase productivity.

Productivity hikes are essential if American products are to become more competitive in both domestic and overseas markets. In the past five years, the productivity of American industry had the smallest increase of any of the other industrial nations of the Free World. We must reverse this trend.

So if there was ever a time for business to review its capital spending plans, that time is now. Interest rates are low, inflation is coming under control, the economy is picking up speed, the world monetary problem is being solved, and the prospects for a decade of the greatest prosperity in history are growing brighter every day. In 1972, those companies that are ready with the most efficient production facilities will profit the most.

Trade

Our international trade patterns will see changes for the better. The growth of America's foreign trade, and the evolution of our trade relations with other nations, will become increasingly significant to American business and important to the public in the year now beginning. The year will see a lot of negotiations to improve our national position with other countries.

We may even see the first large post-war increases in East-West trade and, political circumstances permitting, a building of new commercial ties with the Soviet Union and the other Socialist countries.

To those of us who are optimists, 1971 was a takeoff platform, not just for a splendid business year in 1972, but for continuing prosperity and growth for the decade of the '70s.

Maurice H. Stans

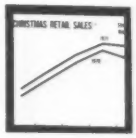
Commerce Today

Incorporating *International Commerce*

Vol. II. No. 7, January 10, 1972

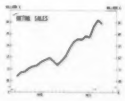
2 Economic Highlights

Rising consumer spirit is evident in Christmas retail sales figures which showed the best year-to-year gain in real volume in five years. This indicates the decisive uptrend will continue in 1972.



4 U.S. Economy In 1972: Vigorous Expansion

Secretary Stans predicts the solid accomplishments in the U.S. economy in 1971 provide a springboard for substantial growth in 1972.

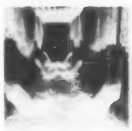


9 'Potential Is There,' U.S. Group Concludes On Trade With USSR

Exploratory talks in Moscow find both sides seeking a goal of commercial "normalization."

14 Industries Building Own Supplies To Meet Surging Water Usage

Increased demands of industry, expected to grow 75 percent in the next decade means manufacturers will require more supply and wastewater equipment.



19 Domestic Business Report

President Nixon proposes pension reform—Adults better educated in U.S. today—Working wives build black family incomes—Banner year ahead for U.S.-flag fleet—Old industry may find new life.

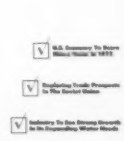
26 Science & Technology Report

Diver-scientists seek answers off Florida—Senate approves Nice, Locarno agreements—$6-14 billion market forecast in private sewage systems in 20 years—Uniform measurements among states important to industry—Patents of special interest.

33 International Commerce

Upcoming worldwide major trade fairs—U.S. foreign trade outlook, 1972—Commercial specialists meet in Africa—U.S. toolmakers in the USSR—Prospects in the Italian market—Impact of Chilean changes—Washington official trade briefs.

COVER: *An aura of optimism pervades this first issue of the new year with the Secretary of Commerce's forecast of what the nation can expect in 1972 in a story beginning on Page 4 and Dr. Passer's prediction on Page 2 of higher retail sales continuing the shoppers' significant buying surge experienced during the recent Christmas season.*



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ECONOMIC
HIGHLIGHTS

Christmas Cash Registers Ring Up Best Gain In Volume In Five Years

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

Christmas was indeed a bright and busy season for the nation's retailers. The rising spirits of consumers are now evident in the sales figures, which climbed well above the holiday sales of a year ago. This indicates that the decisive uptrend of the past few months in total retail sales will continue in 1972.

For the four weeks prior to Christmas, the real volume of sales of stores handling Christmas-type merchandise registered an increase of more than 5 percent over the similar 1970 period. This category includes most of the goods associated with the Christmas season. The increase is the largest year-to-year advance since 1966. Moreover, that 5 percent gain is in real terms; the dollar increase is about 8 percent before adjustment for a 3 percent average rise in prices for this type of goods.

For department stores, sales in the final week totaled $1.6 billion, up 17 percent over a year ago, and the gain was 11 percent for the four-week period.

Two Commerce Department surveys of retailers in December indicated that activity was brisk in most lines, although sales of winter apparel were slower than anticipated because of unseasonably warm weather in many parts of the country. Especially strong sales were reported in furniture and other home furnishings, and some retailers associated this sales increase with the housing boom.

Several factors may have swelled consumer confidence in recent weeks: the cooling of inflation under the Administration's New Economic Program, the rebound in the stock market since Thanksgiving, the rising trend of employment and incomes, and the anticipation of cuts in income taxes.

Although consumers are now spending more freely, they still have a large potential of unused purchasing power, and consumer expenditures are expected to add even stronger impetus to the economy in 1972.

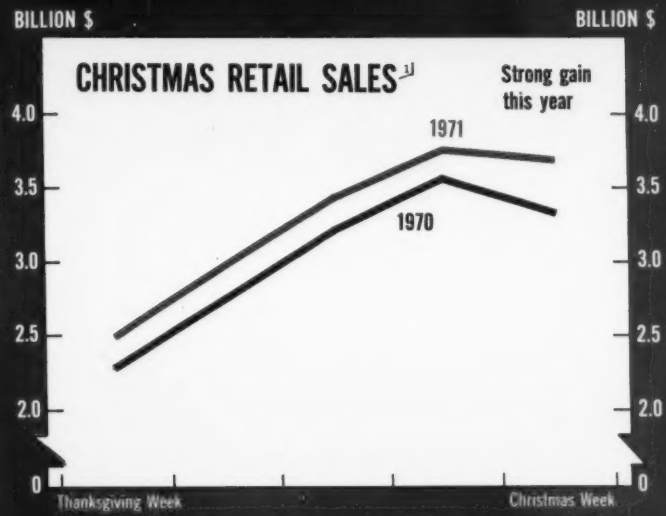
Other economic data

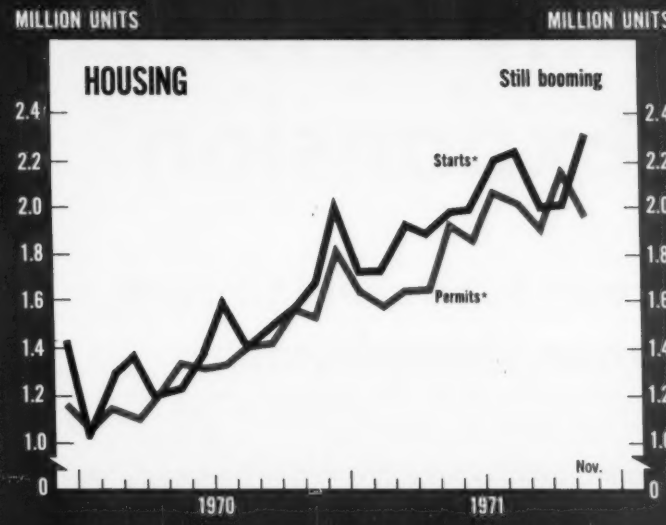
Industrial production was sluggish in 1971, but it is expected to expand in the months ahead now that the coal strike has been settled and steel inventories have been reduced to more normal levels. In addition, strong retail sales should be translated into additional production in the near future.

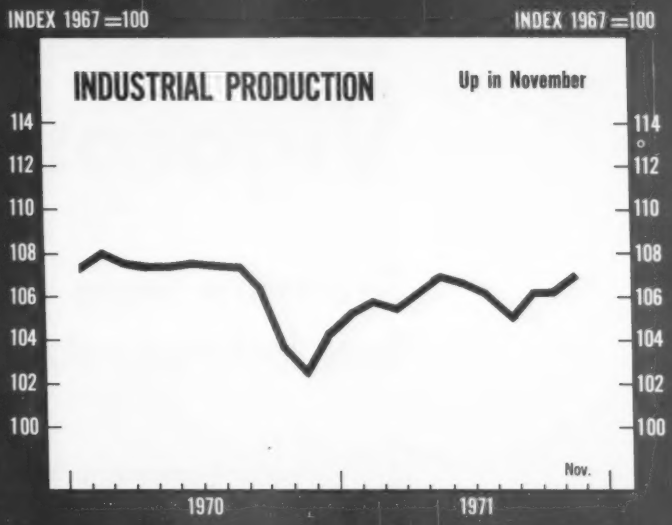
An indication of future increases in industrial production is the recent upswing in factory orders for durable goods. One factor in this advance is the apparent end to the cutbacks in orders for defense and aerospace, which have been a serious drag on the economy for the past two years.

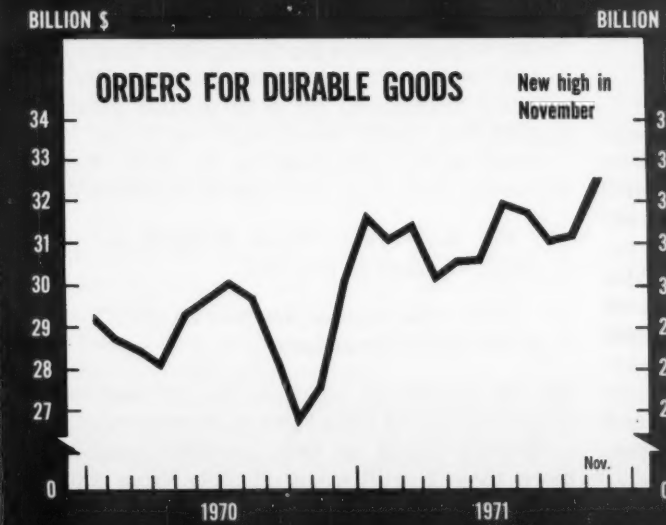
The composite index of leading business indicators continues to point toward further expansion. It has gained more than 13 percent since the low point in October 1970.

Latest Indicators









* Annual rates
All monthly data seasonally adjusted
[1] Sales of general merchandise, apparel, furniture, appliance, and department stores.

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Vol. II, No. 7
January 10, 1972

U.S. Economy In 1972: Vigorous Expansion

Secretary Stans Forecasts Substantial Growth, Less Inflation, And Lower Unemployment

Solid accomplishments in the U.S. economy in 1971 provide "a springboard for a substantial jump" in the rate of growth this year, Secretary Stans said in looking forward to 1972.

Year-end statement

In a year-end statement on the economy, the Secretary said that several major factors will be contributing to the surge in real growth: normal expansion from a growing labor force and increasing productivity, the timing of the business cycle, a stimulative fiscal policy and an accommodative monetary policy, and the removal of the drag caused by cutbacks in defense and aerospace spending.

He also cited the curbing of inflation and the momentum built up in 1971 as the economy improved during the year.

As a result of the New Economic Program announced Aug. 15 by President Nixon the Secretary said 1971 will be labeled as a year of "courageous and constructive changes in international and domestic economic policy."

He added that the nation had swept away "some of its negative psychology and created a new economic environment that will provide the framework for even greater gains in 1972."

Some major achievements in 1971, the Secretary said, were the boom in homebuilding, the cooling of inflation, the increase in employment, and reductions in interest rates.

For the Foreign Trade Outlook for 1972, see story on Page 35.

Read "The Signals Are 'Go' In 1972" on the inside front cover.

Housing starts in 1971 probably totaled more than 2 million, up sharply from 1.5 million in 1970 and 10 percent above the previous record in 1950. On the inflation

UPTREND IN SALES—*Strong increases have been recorded in retail sales in recent months. Consumers are in a good financial position, as measured by total savings, and even greater gains in retail sales are expected in the next 12 months. The automobile industry expects a record year in 1972.*

front, both consumer and wholesale prices responded to the new policy and rates of increases were cut sharply. The number of jobs increased by 1.5 million during the year even though large increases in the labor force kept the unemployment rate at about 6 percent. Interest rates declined, continuing a downtrend that began about mid-1970.

Housing boom

The housing boom is expected to continue in 1972, the Secretary said, and consumer spending is expected to increase substantially. Business capital spending, which increased only moderately in 1971, is likely to show a strong gain this year.

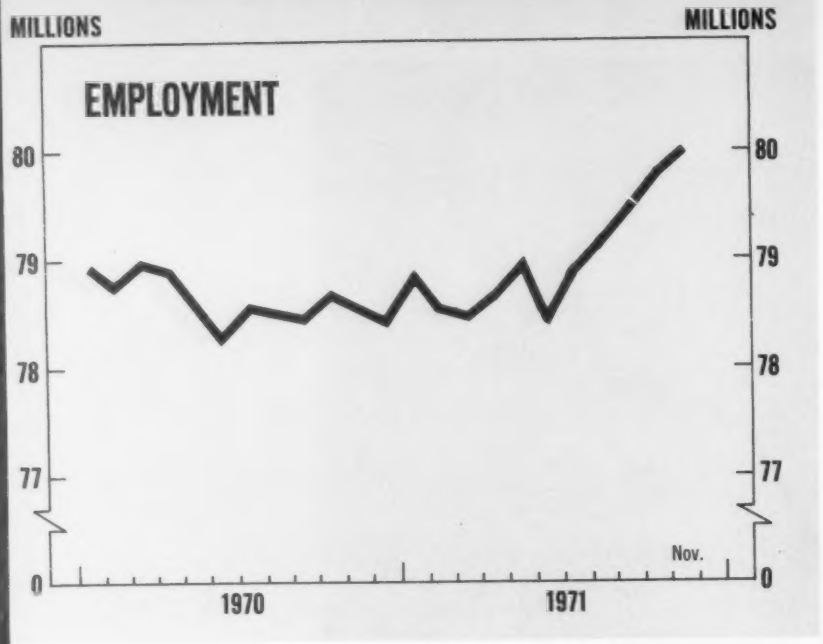
Both Government and private surveys indicate an increase in business capital outlays of about 8.5 percent in the second quarter of this year as compared to the 1971 level. It would not be surprising to see an even larger increase since businessmen usually adjust their sights upward during a business expansion.

The unemployment rate is expected to decline significantly in a more rapidly moving economy in 1972. The job-creating aspects of the New Economic Policy will lead to job increases that exceed labor force growth.

Following is the text of Secretary Stans' forecast for 1972 on the economy:

The success of the economy, like the success of a football team, depends in large measure on its momentum. With the momentum that our economy has generated through the end of 1971, it is certain that the new year will be off to a strong running start.

Part of the business expansion in 1972 will, of course, be accounted for by the fundamental forces of growth that are always present in the U.S. economy—factors such as



INCREASE IN EMPLOYMENT—*The economy generated about 1.5 million additional jobs in 1971 but the unemployment rate remained high because of increases in the total labor force. The unemployment rate is expected to drop significantly with more rapid economic growth over the next 12 months.*

an increasing labor force and productivity gains.

Another ingredient in the expansion will be natural cyclical forces. The economy is still in the relatively early stages of an economic expansion. It is normal to expect larger than the average growth as we move toward full employment of our economic resources.

Other positive factors will include a stimulative fiscal policy, and an accommodative monetary policy. Furthermore, the economic drag resulting from cutbacks in defense and aerospace spending will be eliminated, since these outlays have stabilized. This economic drag has been a restraining factor on total economic activity for the past several years.

The mosaic resulting from these impressions is that the economy will be very strong in 1972. Private forecasters are estimating an increase in real GNP of about 6 percent. This seems reasonable, albeit somewhat conservative; and if achieved it would mark an unusual but not a unique accomplishment. If real GNP increases about 6 percent in 1972, that will be the largest gain since 1966.

In my view, the economy will chalk up a real gain of well over 6 percent. In fact, I would not be surprised if the increase exceeds 6.5 percent, which would make it the largest gain since 1955.

Although employment has been climbing rapidly in recent months, the unemployment rate has continued to hover around 6 percent. In part, this has been due to the cutbacks in defense-related and aerospace jobs. In addition, there has been a large increase in the civilian labor force. Part of that increase was generated by discharges from the military service, as veterans entered the labor force in large numbers.

Employment

I expect to see employment continue its strong upward climb during the new year This growth in employment bolstered by the job-creating features of President Nixon's New Economic Program, will more than absorb further increases in the civilian labor force and will bring a significant reduction in the rate of unemployment.

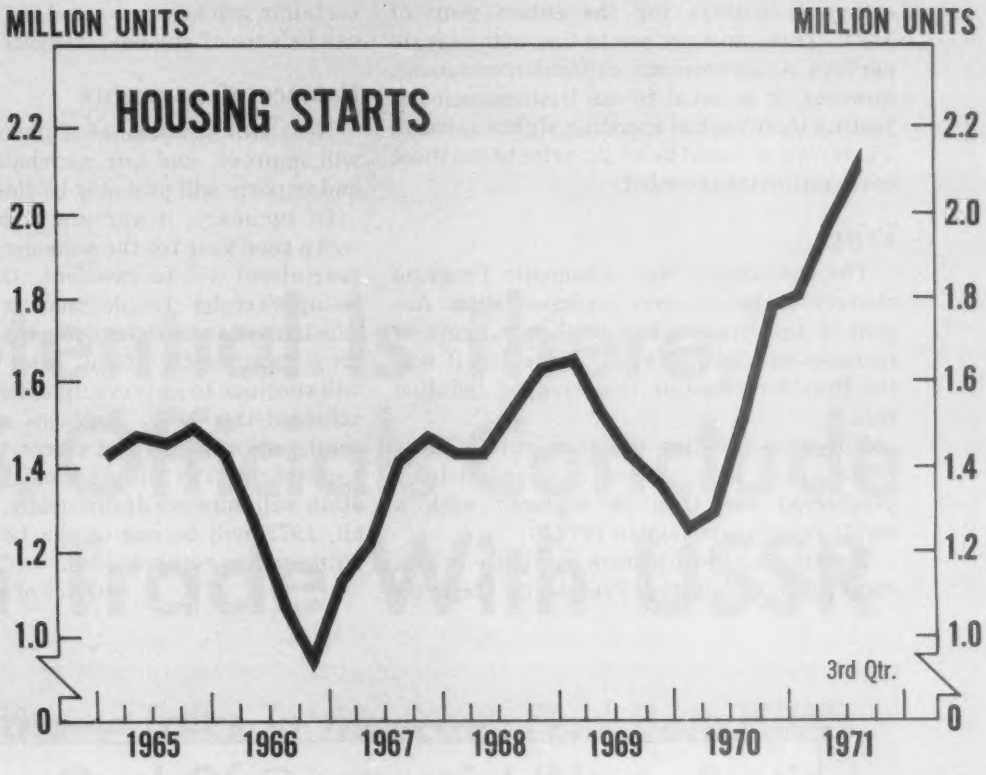
Higher levels of personal income resulting from increased employment, longer hours, and somewhat higher wage rates will provide the major impetus for consumer spending in 1972. In addition, lower tax rates will provide some additional stimulus.

Consumer spending

During most of this year the savings rate has been at relatively high levels, as it was in 1970. This rate declined in the third quarter, however, as consumer confidence increased and as inflationary psychology moderated. To be specific, the rate was slightly over 8 percent during the first two quarters of 1971 and fell to 7.7 percent in the third quarter. In the year ahead it is likely that the savings rate will decline further and probably will be closer to its long-term average of about 6.5 percent.

Much of the consumer spending is expected to go for automobiles, and that industry expects 1972 to be a record year. Another major portion of consumer outlays will go for home furnishings, where a record year also is expected.

A strong upturn in housing began early in 1970 from an annual rate of slightly more than one million units. By early 1971 it was clear that housing was in an extremely strong uptrend, and that this might be a record year. By mid-year, months with annual rates of 2 million units were common, and a new record of more than 2 million starts for the year was a certainty.

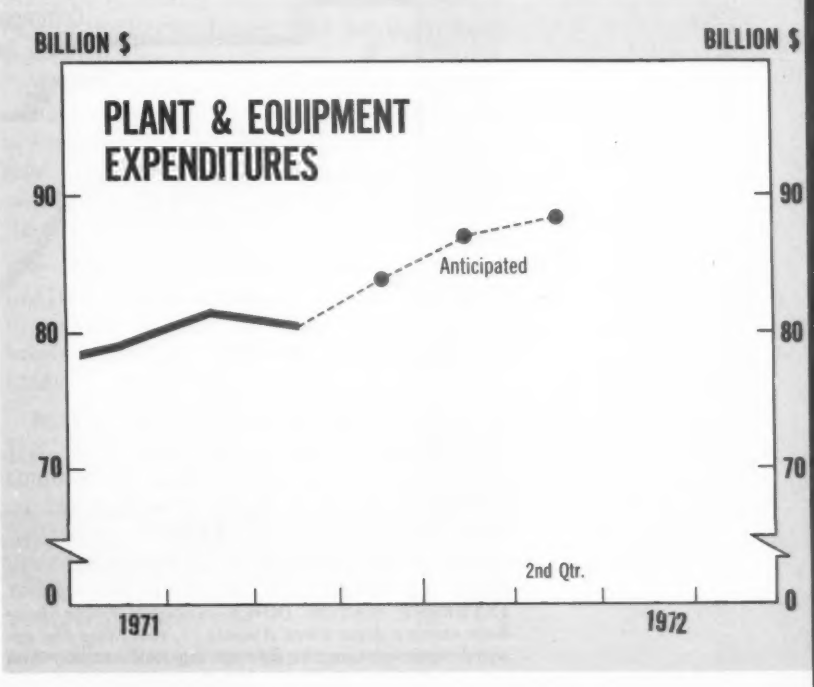


It is likely that the housing boom will continue in the year ahead. Mortgage funds are in ample supply from savings and loan associations and mutual savings banks. In addition, long-term interest rates are still trending down and are well below their peak levels of 1969 and 1970 so that many savers are likely to continue putting their money into the institutions that supply the flow of funds into the mortgage market rather than directly into corporate bonds and other market instruments.

Business investment

Business expenditures for new plant and equipment rose slightly this year, but a vigorous rise is expected in 1972. During the 1970 business slowdown, capital outlays did not decline as they normally do in such a period. Therefore, when business turned up from the November 1970 low point, capital outlays merely rose moderately from their already high levels.

Based upon the latest Government survey,



businessmen expect to increase their capital spending by the second quarter of 1972 by about $7 billion, or 8.5 percent, above the estimated outlays for the entire year of 1971. These findings are in line with private surveys. As an economic expansion continues, however, it is usual to see businessmen adjusting their capital spending sights upward. Therefore, it would be no surprise to see these early estimates exceeded.

Prices

The President's New Economic Program sharply curtailed price increases since August of this year. Prior to that the rate of increase had been slowed slightly, but it was the President's action that stopped inflation cold.

Now that inflation has been curbed, it is important to hold it down. The inflationary psychology can then be replaced with a stable-price psychology in 1972.

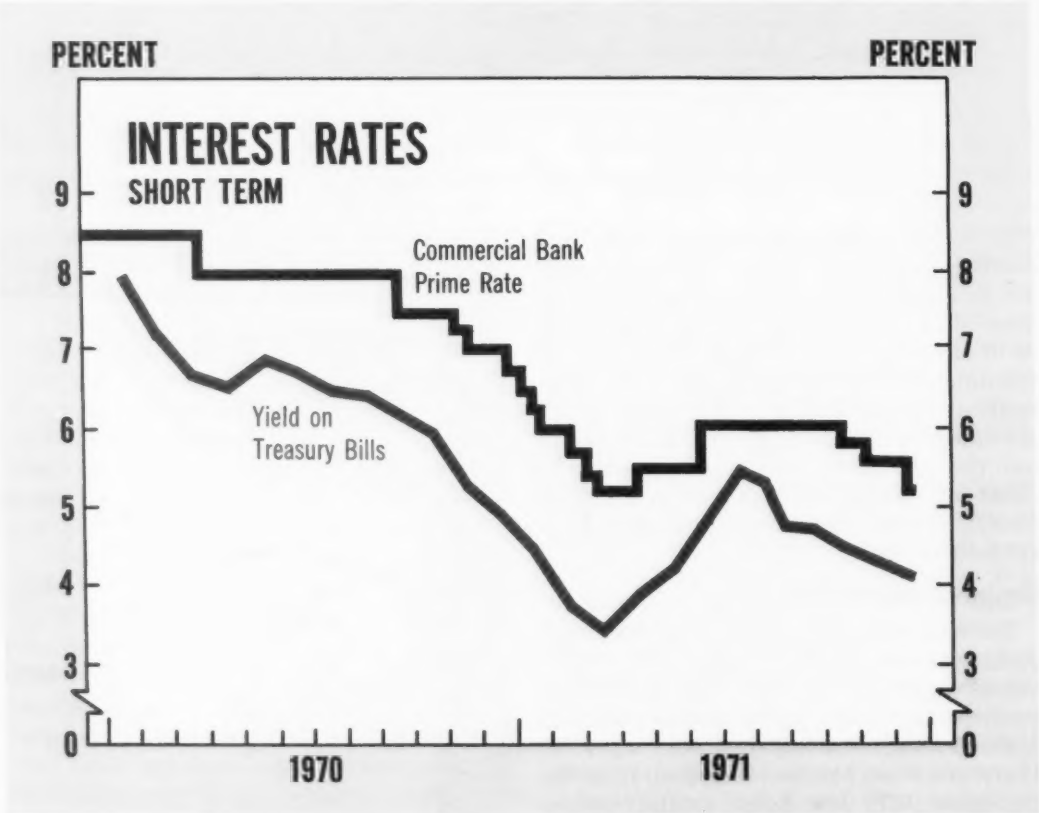
The international picture currently is in a state of flux, but the President's steps on Aug. 15, and the actions that are resulting from negotiations among the Group of Ten, and especially the devaluation of the dollar, certainly will help to correct the large American balance of payments deficits.

Balance of payments

Next year the balance of payments picture will improve, and our merchandise exports and imports will probably be close to balance.

In summary, it appears to me that 1971 was a good year for the economy, and that the year ahead will be excellent. Our GNP will be up sharply. Employment will rise by a substantial amount, and unemployment will drop significantly. Retail sales and housing will continue to improve upon the boom levels achieved this year. Business spending will accelerate strongly and prices will rise only moderately. The international economic situation will improve dramatically. Thus, overall, 1972 will be one of the best years our economy has ever recorded.

—Office of the Secretary



INTEREST RATES DOWN—*Interest rates have been moving down since August 15, reversing the upward movement in the late spring and summer and extending the general decline that began in 1970. Short- and long-term interest rates followed approximately the same pattern during this period.*

'Potential Is There,' U.S. Officials Conclude On Trade With USSR

Exploratory Talks In Moscow Find Both Sides Seeking Goal Of Commercial 'Normalization'

That's no trade at all," said Soviet leader Alexei Kosygin, giving his candid assessment to visiting American officials of the current level of trade—about $190 million—between the two largest economies in the world.

He made the comment as the United States and the Soviet Union explored their mutual desires to improve economic relationships in official talks in Moscow from Nov. 20 to Dec. 1.

"Our countries would be doing more business with each other if there were a normal relationship and this is what we talked about," summarized Secretary of Commerce Maurice H. Stans, who led the U.S. delegation to the Soviet Union. The Soviets echoed this conclusion.

This is the second of three reports on a mission that took Secretary Stans and a group of Commerce Department officials to Sweden, the Soviet Union and Poland in November and December. The first, on the discussions in Sweden, appeared in the Dec. 27 issue; the final report, on Poland, is scheduled for Jan. 24.

The discussions began with a 3-hour, 20-minute session in the office of Kosygin, who is Chairman of the Soviet Council of Ministers. They produced significant understanding on the conditions for normalization and its possible results:

► The Soviet Union's interest in increasing its commercial ties with the U.S. extends to a very substantial dollar volume—certainly a multiple of the present amount of trade.

► The Soviets view an improvement in U.S. tariff terms and greater availability of commercial credit, and reduction of export controls on some goods, as the key to trade progress. They would like to see such changes embodied in a formal trade agreement, and indicate willingness to make reciprocal concessions.

► The Soviets say that among the prod-

DISCUSSIONS IN MOSCOW—*Secretary of Commerce Maurice H. Stans meets with Soviet Premier Alexei N. Kosygin to explore the normalization of trade relations between the United States and the Soviet Union. At rear (from left) are U.S. Ambassador Jacob D. Beam and Harold B. Scott, Assistant Secretary of Commerce for Domestic and International Business.*

ucts of advanced technology they want to buy from the U.S., there is nothing that they cannot obtain elsewhere.

► The U.S. believes that improvement in the climate of trade with the USSR should come parallel with an improved climate of political relations.

► Both sides must learn how to do business with one another. U.S. firms need practical experience in dealing with Soviet agencies, and they also need greater freedom to operate, travel and communicate within the USSR. Soviet enterprises need to do extensive research on the U.S. market if they expect to sell here.

► Major deals can be in the offing if arrangements can be made to trade U.S. products and technology for Soviet raw materials. An example would be the exchange of U.S. know-how and technical assistance for quantities of Soviet natural gas or other natural resources.

The discussions were considered exploratory in nature and did not extend to negotiations. The only agreement concluded was one to continue the talks in January in Washington in a sub-cabinet fact-finding group.

"I went to find whether there was reasonable hope for common understanding upon which to build substantial two-way trade in the future," Secretary Stans declared. "On that basis, I believe the potential is there, and it is large."

This conclusion was buttressed later by an announcement by the Swindell-Dressler Division of the Pullman Company of Pittsburgh that it has concluded a multi-million dollar contract to supply engineering and foundry work for the Kama River Truck Complex in the Soviet Union. Secretary Stans called this "encouraging news" and said if the contract is followed by orders for American-made equipment "it will mean jobs for many Americans."

He linked the development with his discussions in the Soviet Union by saying:

"Swindell-Dressler competed for this business with firms from a number of countries and we are pleased that an American company has made this break-through. Beyond that, this contract is evidence that American companies can do business in the Soviet Union when there is benefit to both parties. My recent trip, including talks with people at many levels in the Soviet Union, convinced me that the Soviets have a real interest in further enlarging trade between our two countries."

Role of U.S. firms

This development also underscored the position of the group about the nature of government—private U.S. business relationships in trade contacts with the Soviet Union. The U.S. delegation explained to the Soviets that while the American Government will take whatever steps may be feasible in its national interest to improve

the climate with Soviet traders, it is up to the competitive initiative and judgment of individual U.S. firms to achieve the concrete progress that will be reflected in rising trade figures.

Secretary Stans was accompanied on the visit to the Soviet Union by an official delegation that included Harold B. Scott, Assistant Secretary of Commerce for Domestic and International Business, other Commerce Department officers, a staff representative of the National Security Council, and a representative of the State Department. During talks on maritime relations with the Soviet Union, he was joined by Andrew E. Gibson, Assistant Secretary of Commerce for Maritime Affairs. The U.S. Ambassador to the Soviet Union, Jacob D. Beam, also participated in major meetings.

Meetings with leaders

Immediately after arrival in Moscow, Secretary Stans went to a conference with Premier Kosygin during which they reviewed the full range of trade and economic matters between the two countries. At the personal invitation of Kosygin, he attended a session of the Supreme Soviet during the Premier's presentation of a new Five-Year Plan. A final meeting with Kosygin occurred at the conclusion of the visit.

The Secretary conferred on three occasions with the USSR Minister of Foreign Trade, Nikolai S. Patolichev. A further working meeting was held with the Minister's staff by Assistant Secretary Scott.

In addition, Secretary Stans conferred at length with the Director of the Soviet Foreign Trade Bank, the Minister of Petroleum Refining and Petrochemicals, the Chairman of the State Committee for Science and Technology, the Minister of the Natural Gas Industry, the Minister of the Maritime Fleet, and the Minister of the Automobile Industry. He also met with the principals of Intourist, the Soviet travel agency.

In Baku, he met with the Deputy Chairman and members of the Council of Ministers of the Azerbaidzhan Republic. In Tbilisi, he met with the Chairman, the Deputy Chairman, and members of the Council of Ministers of the Georgian Republic.

At social events he met with the USSR Minister of Culture and the Minister of Agriculture. At a similar event, he had the final brief private talk with Premier Kosygin. On this occasion the Soviet Premier presented the Secretary with a personal letter to be delivered to President Nixon, in response to a letter from President Nixon that was transmitted at their first meeting.

Assistant Secretary Scott and other members of the party also met with the Chairman of the State Committee on Standards, and with officials of the All-Union Chamber of Commerce.

The U.S. visitors reported that, without exception, these meetings were friendly, direct and businesslike. Premier Kosygin described an ambitious program to expand trade and industrial and scientific collaboration.

The Soviets consistently stated that, for the full scope of potential trade to be realized, the United States must reduce what they see as impediments, including high tariffs, denial of credit, various shipping restrictions and unilateral export controls. Nevertheless, Soviet officials were willing to discuss practical opportunities to enter into reciprocal arrangements that might be possible even within some of the present restrictions.

The Soviets also recognized U.S. business firms' desire for more normal access to the USSR market, including better provisions for business offices and communications, travel rights, elimination of high USSR tariffs, and removal of discrimination against U.S. products and technology. They appeared will-

MAJOR SHIPMENT TO THE USSR—*A 25-ton shipment of machinery used in the making of electronic printed circuits was sent via Pan American World Airways to Moscow last Fall. Chemcut Corp., State College, Pa., made the sale.*

ing to negotiate these matters on a reciprocal basis.

► It was agreed to create a joint U.S. Department of Commerce—USSR Ministry of Foreign Trade fact-finding group to study such questions as product reviews of export opportunities in each direction, facilities needed by U.S. firms in the USSR and specific joint venture possibilities. It is this group that is meeting this month in Washington.

► An invitation was extended by the Secretary to Soviet Minister of Foreign Trade Patolichev to pay a return visit to the United States. This may be scheduled either before or after the Presidential visit to Moscow in May.

It was apparent in the Moscow discussions that the Soviet Union recognizes that U.S. equipment and technical skills can speed progress toward Soviet economic and social goals. To this end it would like to purchase larger amounts of U.S. capital goods and technical licenses. In addition, it sees a need for major imports of U.S. feed grains.

In order to finance larger imports from the United States the Soviet Union must develop larger export sales to the American market. It sees opportunities to do so by selling major quantities of raw materials, including fuel. Over a longer term, given "Most-Favored-Nation" treatment, it believes it could become competitive in selling industrial products as well.

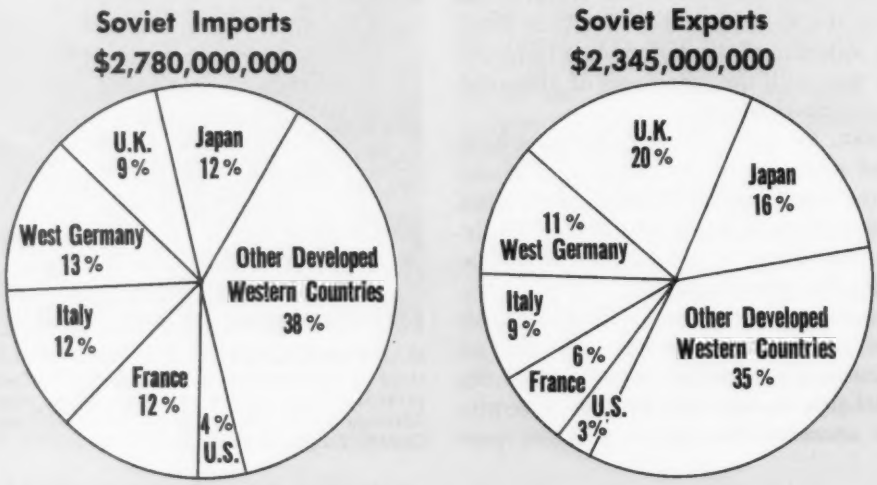
Few USSR manufactured products are competitive in the U.S. market at present tariff rates. Moreover, the USSR, faced with tariff rates which are in many cases several times as high as those applying to its competitors, now has little incentive to develop new export industries directed at the U.S. market.

At the outset, imports from the USSR could increase primarily in the area of raw materials—minerals, forest products and fuel, especially natural gas. These are areas in which ample Soviet resources promise efficient and low-cost production of items for which industry has an increasing appetite, and for which the United States may require increased supplies from abroad.

The Soviets have negotiated joint ventures and technological arrangements with many Western countries, it was pointed out to the U.S. officials. These include timber development, construction of ports, nickel mining, pipelines, glass manufacture, automobile manufacture, natural gas development, chemical plant construction, synthetic fiber research, and household appliance technology.

Normalization of trade with the Soviet Union would give the United States a more important supplier position in competition with the Western industrial nations. This would contrast with the present token level of trade (see chart below for details) in which the United States, the world's

USSR Trade With The West, 1970



Source: USSR Statistics

largest trading nation, supplied in 1970 only 1 percent of Soviet imports, and took only ½ of 1 percent of Soviet exports—what Kosygin called "no trade at all."

The main items in expanded exports to the USSR would be capital goods and equipment, the traditional area of U.S. superiority in industrial trade. At the same time, our efficiency in agriculture appears to lend itself to long-term arrangements to supply feed grains in support of the Soviet program to increase meat production.

U.S. exporters face special handicaps at this time in selling to the USSR:

► They cannot use the export credit or insurance facilities of the Export-Import Bank.

► The Soviet trading organizations are disposed not to buy from the United States when satisfactory substitutes are available elsewhere, due to their desire to keep bilateral trade roughly in balance.

► Finally, U.S. exporters are handicapped by inability to obtain normal business support facilities in the USSR (including office space, housing and communications facilities) and by difficulties in contacting end-users for sales and service, because of centralized procedures and restrictions on travel.

Such obstacles have effectively limited U.S.-USSR trade to its low level, and there is little prospect for major increases as long as they remain.

Growth of Soviet economy

Despite past reverses, the Soviet economy has now achieved a sustained and relatively substantial rate of growth. Total Soviet trade with the developed countries of the West has reflected this trend, growing from $2 billion in 1960 to $5 billion in 1970.

The Five-Year Plan just adopted contemplates a further increase of 47 percent in consumer goods output. One of the goals of the new plan is to raise the share of national income available for consumption, as well as the share of capital investment in the consumer and service sectors.

In order to accomplish this, the new plan calls for an overall productivity increase of 7½ percent annually through 1975. This means an increase of productivity in industry, construction and agriculture of almost 40 percent by 1975. This goal highlights the USSR's interest in sophisticated high-technology equipment, of which the United States is traditionally a major source.

Under these conditions, the potential for U.S.-USSR trade, provided present obstacles are removed, is seen as much greater than the present level. Many estimates have been advanced of the level such trade might reach. While there is a wide diversity in such estimates, the mission concluded that, given reasonable freedom to trade, by 1975 U.S. exports could be many times greater than current levels.

Opportunities are there

Thus, the USSR market offers important long-term opportunities for U.S. business. Methods of negotiation, procurement procedures and attitudes toward business relationships differ from those of the United States and of Western Europe. American firms interested in the USSR market must adapt their techniques to the special demands there, just as they have in other regions of the world.

Soviet officials described in some detail the opportunities for U.S. collaboration with the USSR in the extraction, processing and transportation of raw materials. They noted an abundance of such unexploited raw materials in the USSR, making specific reference to natural gas, petroleum, non-ferrous minerals (titanium, copper, platinum, zinc, diamonds), and forest products.

It was suggested by them that the United States would need increasing quantities of raw materials, while the USSR required substantial amounts of capital and technology to develop its known reserves. Accordingly there seemed opportunity for profitable collaboration between the two countries in such projects. They pointed out, further, the need for development of agreement on legal, accounting, and other concepts for the purpose.

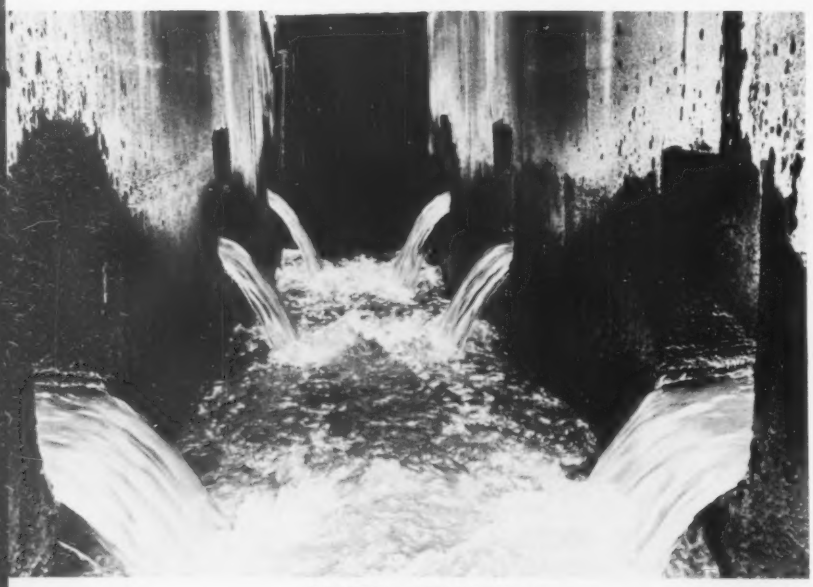
The joint ventures discussed by the Soviets involve the contribution of American capital and technology, on credit, with our firms taking payment in product at a pre-arranged pricing formula until the original value plus interest is reimbursed. The Soviets expressed approval in principle on entering into long-term (20-30 year) supply contracts to continue thereafter.

The Soviets made clear their interest in the successful conclusion of one or more projects of this kind in order to assist them in the development of natural resources and to generate the foreign exchange needed to purchase U.S. goods and technology.

These Soviet proposals should be carefully explored by American companies, it was felt by the U.S. officials.

Industries Building Own Supplies To Meet Surging Water Usage

Manufacturers Will Require More Supply Plants And Wastewater Equipment To Meet Demand



WATER AWARENESS—*Increased demands by industry for water have created an awareness of the need to reclaim, purify and recycle water from many sources, including its own supply systems.*

Industrial water requirements can be expected to grow 75 percent over the next decade.

The use of water by the manufacturing sector of the Nation has continued to increase, side by side with the rise in the country's industrial output. Today manufacturers are the third largest users of water in the United States, trailing only power generation and agriculture. By the year 2000, analysts estimate that industry will move up to second place, nosed out only by power generation needs, with agriculture dropping into third place.

The corresponding increase in industry's call for water supply and wastewater equipment is still somewhat of a surprise. In past years, industry has turned to municipal supplies to take care of much of its needs. For economic reasons, however, industry has begun to look to its own water supplies and equipment for its requirements. This trend away from municipal supplies to self-

CLEANING IT UP—*Most of the water needed in industrial plants must be treated before it can be used, developing greater markets for water supply and wastewater treatment equipment. This water is flowing over a weir as it leaves an industry clarifier. The weir is used to control the volume of the flow.*

supplied systems is reflected in the growth in shipments for industrial water supplies directly to manufacturers.

Market importance

The trend is noticed in a recent Commerce Department survey of equipment shipments by the Construction, Water Resources and Engineering Division of the Bureau of Domestic Commerce, performed basically for industrial defense mobilization purposes, but proving to be of special importance to market analysts and water resource and pollution control planners.

The survey, which covered approximately 95 percent of equipment sales to public and private municipal water and wastewater utilities and 70 percent of the sales of industrial water and wastewater treatment equipment, showed that in 1970 municipalities and industry spent nearly $100 million more for water and wastewater equipment than they had two years previously—and more than double what they spent in 1965.

This increase in equipment expenditures, however, is mainly attributed to industrial plants. In fact, industrial expenditures for water supply increased 81 percent from 1968, and 295 percent from 1965. Industrial expenditures for wastewater equipment rose 143 percent and 300 percent from 1968 and 1965, while municipal water supply expenditures were actually decreasing. Municipal water supply shipment expenses dropped 25 percent from 1968 and about 4 percent from 1965. But, during the same period, equipment expenditures for municipal wastewater disposal did increase—14 percent from 1968 and 68 percent from 1965.

Out of a total $4.5 billion construction put in place figure for 1970, $348 million was spent by municipalities and industry combined for water and wastewater equipment; $164 million for water treatment equipment ($52 million by municipalities, $112 million by industry), and $184 million for wastewater equipment ($90 million by municipalities, $94 million by industry).

Summary Of Total Construction Expenditures And Shipments Of Major Items, 1965, 1968, 1970 [Millions Of Current Dollars]

	Water supply						Wastewater disposal					
	1965		1968		1970		1965		1968		1970	
	Municipal	Industrial	Municipal	Industrial	Municipal	Industrial	Municipal	Industrial	Municipal	Industrial	Municipal	Industrial
Total expenditures	1,500	225	1,800	500	1,280	725	1,300	225	1,700	400	1,650	800
Distribution and collection systems	1,200	...	1,440	...	1,023	...	870	...	1,130	...	1,064	...
Treatment plant	300	...	360	...	257	...	430	...	570	...	586	...
	Treatment plant equipment shipments											
Total shipments	54.4	28.4	69.4	62.0	52.0	112.2	53.4	23.6	78.3	38.8	89.6	94.3
Major items:												
Aerators	0.3	0.1	0.7	0.2	0.7	1.5	4.6	3.7	9.3	8.1	10.6	11.2
Chlorinators	7.6	3.1	7.8	5.2	2.3	5.0	3.1	1.3	xx	xx	2.3	2.4
Dewatering, incineration, wet combustion	...	...	...	...	...	...	3.6	1.6	16.7	4.4	12.6	13.2
Ion exchange units	4.3	1.0	6.7	20.1	15.4	33.2	...	...	xx	xx	0.4	0.4
Meters and controls	16.6	8.2	16.9	8.8	10.6	22.8	4.6	4.0	5.0	4.4	8.8	9.2
Pumps	11.1	8.6	11.3	9.0	6.5	14.0	8.2	6.3	8.5	6.7	14.9	15.7
Sedimentation	1.1	0.7	2.9	1.6	1.3	2.8	5.7	2.2	6.1	4.0	7.9	8.3
Package pumping stations	...	...	...	...	...	...	5.3	0.4	11.4	0.6	8.0	8.4
Package treatment plants	3.7	2.1	8.0	2.5	3.4	7.3	9.4	1.2	11.6	3.2	9.2	9.7

xx.—Combined with water to avoid disclosure of individual company shipments.

Water And Wastewater Treatment Equipment Industry Structure—Establishments And Shipments

Value of shipments	Establishments						Shipments					
	1965		1968		1970		1965		1968		1970	
	Number	Percent of total	Number	Percent of total	Number	Percent of total	Value (million $)	Percent of total	Value (million $)	Percent of total	Value (million $)	Percent of total
Under $500,000	33	34.7	96	53.6	84	46.7	6.6	4.1	16.4	6.6	12.0	3.4
$500,000 to $999,000	23	24.2	21	11.7	25	13.9	15.0	9.4	15.9	6.4	16.3	4.7
$1,000,000 to $5,000,000	30	31.6	50	28.0	46	25.5	66.0	41.3	122.9	49.5	106.6	30.6
Over $5,000,000	9	9.5	12	6.7	25	13.9	72.2	45.2	93.2	37.5	213.2	61.3
Total	95	100.0	179	100.0	180	100.0	159.8	100.0	248.4	100.0	348.1	100.0

Historical data with which to compare water supply and wastewater treatment facilities in industry is minimal, because until 1965 no extensive studies had been made with regard to the manufacturer's role in buying and using this equipment. The shipment survey recently concluded is the third in a series of such studies launched by the Commerce Department to take care of this void.

The 1968 and 1970 survey results can be considered to be more reliable than the first study taken in 1965—not only because experience and clarification of questions added to their accuracy, but also because of a larger response from manufacturers polled. In 1965, 95 manufacturers replied to the questionnaire; in 1968 and 1970 more than 180 replied.

Industry is asking that these studies be continued. Robert A. Canham, Executive Secretary of the Water Pollution Control Federation emphasizes that the results of the 1970 study offer to the water pollution control industry uniquely valuable information on both present and future market activities.

"At the Water Pollution Control Federation," he said, "we have found this recent report especially timely, in view of some of the lingering doubts as to the enormous po-

tential for the water pollution control field."

Canham added that the report includes information needed by the more than 23,000 members and subscribers of the Federation—all of whom are individuals having the responsibilities for the detailed technical analysis and other requirements for the construction, operation and management of wastewater collection and treatment facilities.

The industry future

Canham noted that the Federation was now taking a real sharp look at their plans for future water supply and wastewater equipment needs. He concluded that he hopes a "periodic study of this type will continue because of its importance in future marketing policies and actions, not only to the Federation, but to the entire water pollution control field."

All three surveys were conducted under the guidance of K.L. Kollar, Director of the Construction, Water Resources and Engineering Division of BDC. Kollar, together with W. G. Youngwirth, Commodity Industry Specialist for the department, analyzed the results of the 1968 and 1970 studies.

One unique fact is pointed out by Kollar. Even though industry expenditures in this field are steadily rising, an analysis of the establishments and value of shipments by size category in the 1970 survey confirms results noted in the previous study. These results indicate that the volume of sales of equipment in the treatment of water and wastewater is relatively small for the majority of the firms.

"One hundred and nine firms," noted Kollar, "which represent more than 60 percent of the total reporting in the survey, listed shipments of less than $1 million for 1970—accounting for only slightly more than 8 percent of the total shipments for that year."

Twenty-five of the 180 manufacturers who responded to the survey shipped equipment valued at $213 million. These 25 firms, which represent 14 percent of those reporting, shipped 61 percent of the equipment during 1970.

Kollar also stated that the quality of water intake requires more treatment today, with a consequent higher invesment by industry in water treatment equipment. He noted that historical information concerning existing facilities is limited, making industrial water supply requirement difficult to determine.

But, according to the Bureau of Census survey of 1968, "Water Use in Manufacturing," approximately 23 percent of intake water received some treatment. However, the extent to which the remainder (including cooling, etc.) requires treatment is not known.

Nevertheless, it can be assumed that the market for equipment in this area will be influenced by the 75 percent higher industrial water requirements—set at this pace to keep astride of the rising industrial output estimates made by the Commerce Department's Bureau of Economic Analysis.

Kollar said that it can also be assumed that the market for equipment will grow in order to satisfy a backlog of unfilled needs, as well as to support maintenance and repair requirements.

Lack of background

Industrial wastewater facilities background material is lacking, too. The 1965, 1968 and 1970 surveys have, however, afforded a basis for estimating investments in these facilities.

Kollar implied that the pressures of enforcement of stream quality and effluent standards and the threat and actual invoking of the Refuse Act of 1899 have added stress to this field, and actually spurred increased construction activity.

"This market," he concluded, "should expand. But the degree of expansions depends heavily on the backlog of unmet needs."

Another prediction of survey analysis is that a heavy demand for meters and controls and water quality monitoring equipment should materialize during this year—and continue to grow during the decade.

Donald A. Buzzell, Executive Director of the Consulting Engineers Council, feels that the survey report is filling an important vacuum in industry marketing facts.

"This survey," he pointed out, "is, naturally, only one of the many pieces of information that the whole of industry needs to look at to know what it must consider for the future."

The report, nevertheless, is one of high interest to industry for the consulting engineers, helping them gear up to get into the water supply and wastewater equipment field, obviously one of growing importance to industry, and one that is likely to have stronger influence in the coming years.

"Information of this kind," said Buzzell,

"makes us sit up and take notice, and realize that we must include these implications in our plans for further development."

As noted previously, outlays for construction of municipal water supply facilities, covering almost 80 percent of the U.S. population served by central water supply systems have been declining recently. According to past Census of Population data, nearly 15 percent of the population resides in areas with a density of 50 people or less per square mile. Thus, most future construction of these systems relate to serving the needs of a maximum of 85 percent of the population.

It can be, therefore, assumed that the construction of new water supply facilities will be to meet the needs of population growth, expansion and improvement of existing facilities, development of new sources of supply and the provision of facilities for new towns.

Kollar explains that one of the more important factors influencing materials usage in water supply facilities will be the pattern of housing construction—for instance, if areas outsides of the central city are built up, additions to the housing supply may depart from the low-density characteristic of the Post-World-War II period.

"A greater prevalence of multi-unit construction—particularly of high rise structures," he said, "could very likely mark the decade of the 70s, and influence the municipal market for water supply and wastewater equipment."

It is expected that the decline in water supply equipment for municipalities will come back into its own during the next decade.

Rising need

An upward trend, still, in municipal facilities is that of wastewater plants. It is assumed that this trend will continue for some time. Not only is there a market of 35 percent of the population with unfilled needs, but expansion and improvement of existing facilities and services for new towns need to be met. Because of the considerable lag between project planning and actual construction, however, the prospects are for gradual rising construction outlays rather than rapid acceleration.

It is interesting to note that ion exchange units (the removal of hardness from water) continues to show the largest volume of equipment shipments for both municipalities and industry. And the major portion of the market for waste treatment equipment is primarily tied to its use in industrial plants.

Copies of the report, "The Market For Water And Wastewater Equipment," are available for sale for $.55 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or through any U.S. Department of Commerce Field Office. The NTIS Reference Number is BDC-645-02-71-005.

—Bureau of Domestic Commerce

CLEAR WATER—*Many industries require clear water supply for process as well as specialized uses. Above organic polyelectrolytes are used to improve the clarification technique to meet the requirements.*

WHAT'S NEEDED?—*An industry technician extracts and measures the solvent soluble to provide information on the type of water treatment program most suitable to comply with water requirements.*

DOMESTIC BUSINESS REPORT

- President Nixon proposes pension reform
- Adults better educated in U.S. today
- Working wives build black family incomes
- Banner year ahead for U.S.-flag fleet
- Old industry may find new life

Congress Considering Pension Reform Plan

A comprehensive private pension reform program of major importance to small businessmen and self-employed persons, as well as millions of employees, will be before Congress for action when it reconvenes January 18.

This is the five-point pension reform plan presented to Congress by President Richard M. Nixon on December 8 to remove inequities and imbalances in the existing private pension system, and to offer inducements for greater retirement income protection for the less-favored millions.

Commenting that existing private pension plans are a tribute to the cooperation and creativeness of American labor and management, the President pointed out that more than four million retired workers are now receiving about $7 billion annually from private retirement plans that have accumulated in excess of $140 billion to pay future benefits.

Half with no plans

At the same time, he recalled that half of the present American wage earners are not in private group plans and have no tax incentive for investing in retirement savings as individuals, and that a large number of others are enrolled in group plans whose benefits they regard as insufficient for their retirement needs or that do not insure that accumulated benefits will actually be available when they retire.

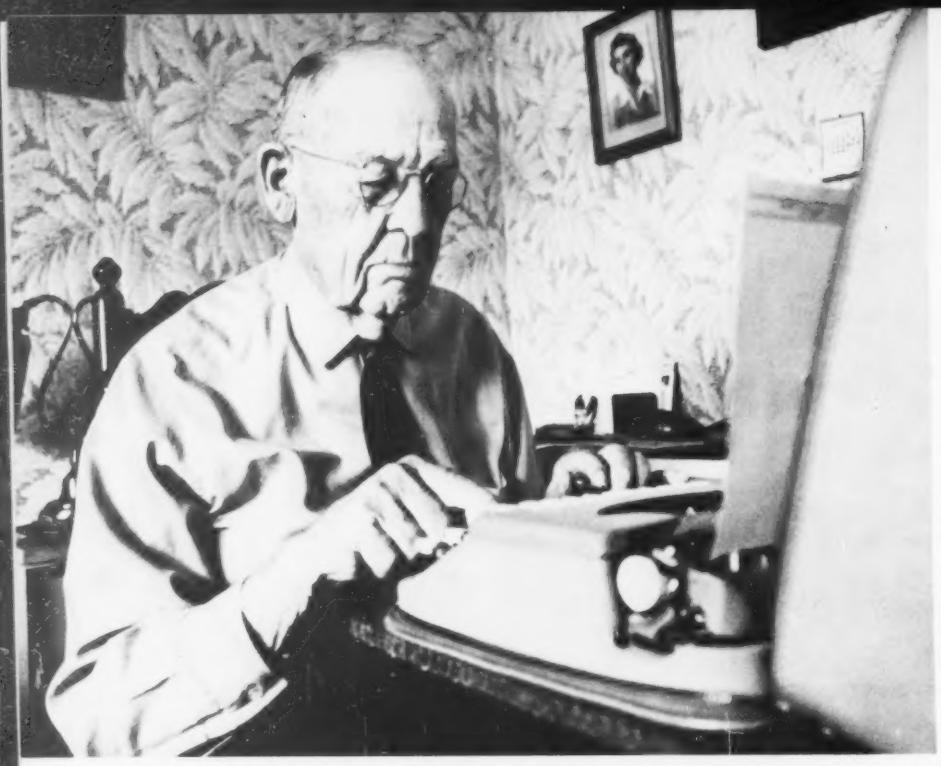
"It is clear," the President said, "that our efforts to reform and expand our income maintenance systems must now be complemented by an effort to reform and expand private retirement programs."

One of the President's proposals of special interest to many small businessmen would provide a more generous tax deduction than is now permitted for self-employed persons who invest in pension plans for themselves and their employees.

Under this proposed change, self-employed persons establishing pension plans covering themselves and their employees would be permitted to deduct up to 15 percent of earned income annually or $7,500, whichever is less, for contributions to build up these plans.

Under existing law, deductible contributions are limited to 10 percent of earned income annually, or $2,500, whichever is less.

The President observed that the more liberal tax treatment "would encourage and enable the self-employed to provide more adequate benefits for themselves and their workers."



NEW TRICKS—*An older man can learn new tricks, such as typing. But if he had worked for a small business without a pension plan, or been self-employed, improvement is needed in the life style under which he finds he must live today.*

He recalled that no limits comparable to those imposed on the self-employed apply to contributions made by corporations on behalf of their employees. One consequence of this distinction, he said, has been to create an artificial incentive for the self-employed to incorporate and another has been to deny benefits comparable to those afforded corporate employees to employees of self-employed persons who do not wish to incorporate.

To benefit more

The proposal would benefit about 200,000 persons in plans set up by the self-employed. The revenue cost is estimated at $110 million a year.

Another of the President's proposals would enable individuals to deduct 20 percent of income, up to a level of $1,500 a year, to make contributions to retirement savings programs.

"Individuals," the President said, "would retain the power to control the investment of these funds, channeling them into bank accounts, mutual funds, annuity or insurance programs, government bonds, or into other investments as they desire. Taxes would also be deferred on the earnings from these investments."

President Nixon said the proposal would enable a person who began his plan at 40 with contributions of $1,500 a year to retire at 65 with an annual pension of $7,500 in addition to Social Security benefits.

"This proposed deduction," he added, "would be available to those already covered by employer-financed plans, but in this case the upper limit of $1,500 would be reduced to reflect pension plan contributions made by the employer. An appropriate adjustment would also be made in the case of individuals who do not contribute to the Social Security system or the Railroad Retirement System."

About 14 million taxpayers would be expected to claim tax deductions under the proposal. Approximately 70 percent of the tax benefits would go to persons with incomes below $15,000 a year.

The revenue cost of the proposal is estimated at $300 million the first year, $350 million the second year, $410 million the third year, and $480 million the fourth year, as an increasing number of people took advantage of the plan.

A third proposal made by the President is intended to establish a minimum standard for vesting of pensions, that is, for preserving pension rights of employees even though they leave their jobs before retirement.

The proposal is based upon what the President called the "Rule of 50," that is, every pension would be considered half vested when an employee's age, plus the number of years he had participated in the pension plan, equalled 50. After that, an additional 10 percent of the pension would be vested each year so that the pension would be fully vested five years later.

Fully vested

A pension is fully vested, the President pointed out, when an employee is entitled to receive all benefits accumulated up to a certain date regardless of what happens between that date and his retirement.

Despite encouraging increases that have been made in the degree of vesting in private pension plans, the President commented, the pensions of more than two-thirds of all current participants in private pension plans are not now vested.

"Even among older employees, whose need for vesting is most acute," the President said, "many pensions are not now vested. Forty percent of participants age 45 or older, 34 percent of participants age 50 or older, and 26 percent of participants age 55 or older do not have vested pension rights."

Pointing out that his proposal would give older workers the advantage of more rapid vesting, President Nixon said this could limit somewhat new employment opportunities for older workers.

"To help alleviate this danger," he added, "I recommend that a three-year waiting period be al-

lowed before a new employee must be permitted to join a pension plan, and also that employees hired within five years of retirement need not fall under this vesting rule."

The President said that, to avoid excessive cost increases in pension plans which might lead to reduction of benefits, the proposal would apply only to benefits earned after the bill became effective.

Other points

Other points in the President's program are:

- The Employee Benefits Protection Act proposed to Congress in March, 1970, should be promptly enacted into law. This legislation is intended to protect workers against abuses by those who administer pension funds. It would provide a Federal remedy against carelessness, conflict of interest, and a range of corrupt practices, and would also broaden reporting and disclosure requirements and strengthen investigatory and enforcement powers.
- The President has directed the Treasury and Labor Departments to undertake a one-year study to ascertain the extent of benefit losses under pension plans that are terminated. The object is to determine the degree to which terminations occur, the number of workers affected, and the extent to which they are harmed. The information would be a guide to what Federal policy should be on such questions as funding, the nature of the employer's liability, and termination insurance.

Economic security

"The private pension system," the President said, "has contributed much to the economic security of American workers. We can be proud of its growth and its accomplishments. The proposals I offer will strengthen and stimulate its further development.

"I hope this program will receive the prompt and favorable consideration of the Congress. For it can do a great deal to protect the rights of the average American during his working years and to enhance the quality of his life when he has retired."

DRESSING UP—*Senior Citizen clubs can make life happier for people on retirement, but the dollars they get when they had no pension plans to provide for them in these retirement years don't provide many of the needed comforts for them today.*

High School Diplomas Now Earned By More Among U.S. Adults

Sixty percent of the adults in the United States now can boast of at least a high school education, complete with a diploma, says the Commerce Department's Census Bureau.

A new report by the Bureau, based on a national survey, shows that this 60 percent of the population had the diplomas in 1971, compared with 43 percent of U.S. residents in 1960, a decade before.

Much of this increase was due to an increasing rate of increase in education among blacks—a greater growth, in fact, than among whites. The proportion of blacks 20 years old and over having finished high school increased from 24 to 40 percent, while the figure for whites increased from 45 percent in 1960 to 62 percent in 1971—a two-thirds jump for the Negroes and only a one-third rise for the whites.

Among persons 20 to 29, who would have completed high school more recently, the proportion with a high school education increased from 65 to 82 percent for whites; from 40 to 62 percent for blacks.

Among the nearly 38 million employed men in the United States between the ages of 25 and 64, the data shows that 65 percent of them have completed their high school education. Of this 65 percent, 29 percent now have at least one year of college and 17 percent have finished college.

The survey confirms that men with relatively high levels of education are more likely to be working in white-collar jobs than men with relatively low educational attainment. Ninety-five percent of men with four years of college or more are in white-collar jobs; the white-collar segment for those with only a high school diploma is 38 percent and for those with no high school, only 12 percent.

—Census Bureau

More Working Women Increasing Incomes Of U.S. Black Families

Working black women are making a substantial contribution toward narrowing the gap in median income between white and Negro families in the U.S.

Nearly double

In the North and West the number of young black families in which husband and wife worked almost doubled between 1959 and 1970, according to a recent census study. This means 63 percent of young Negro wives contributed to family income, including 52 percent with year-round jobs. For white families, 54 percent of the wives held jobs in 1970. Thirty-six percent of them were year-round.

The number of working wives in white collar occupations has increased for both races, but the rate of increase for black women was considerably higher. In 1970 the proportion of wives in professional, managerial, clerical and sales position was still greater for whites, who had 50 percent, than for Negroes, with 30 percent.

For young husband and wife families outside the South, the proportion of wives in white collar jobs was almost the same—47 percent for blacks, 45 percent for whites. Eleven years ago the proportion was 19 percent for Negroes and 39 percent for whites.

Ratio rose

The overall ratio of Negro to white median family income rose from 51 percent in 1959 to 61 percent in 1970, according to the Census Bureau report. However, black families outside the South had a ratio of 74 percent by 1970. In the South the figure was 57 percent.

Median income rising

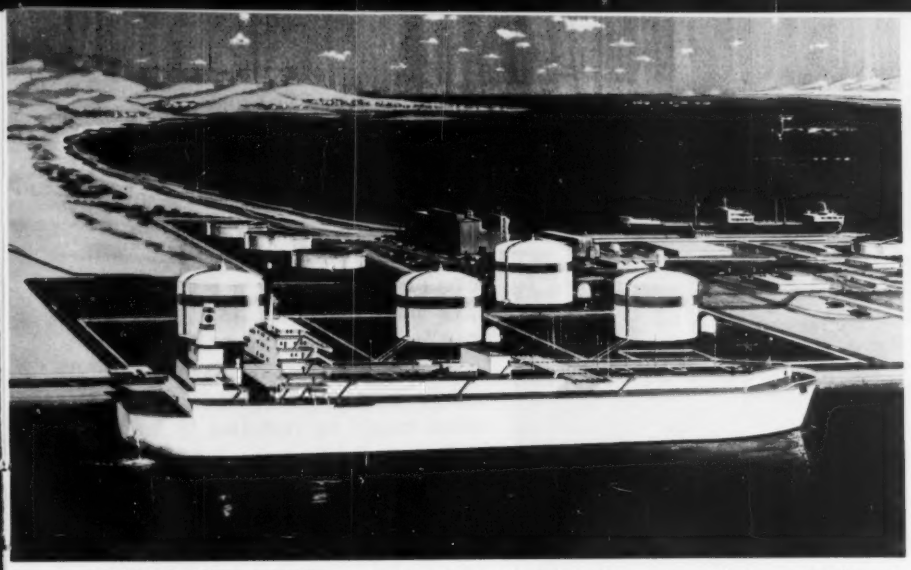
In the North and West, median income for Negro families with both husband and wife present was 88 percent of whites by 1970. Where the head of the family is under 35, the percentage was 96. If both husband and wife are working, median family income for blacks was four percent above that of whites.

Copies of the report, Differences Between Incomes of Whites and Negro Families by Work Experience of Wife and Region: 1970, 1969, and 1959, Series P-23, No. 39, are available for 20 cents each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from Commerce Department Field Offices in 42 major U.S. cities and San Juan, Puerto Rico.

—Census Bureau

Earnings Of Husband And Of Wife As A Percent Of Family Income For Families In Which Both Husband And Wife Worked, By Age And Race Of Husband: 1970, 1969, And 1959

Age of husband	Mean Earnings				Mean earnings as a percent of mean family income			
	1970		1959		1970		1959	
	White	Negro	White	Negro	White	Negro	White	Negro
UNITED STATES								
Husband								
Total	$8,786	$6,209	$5,006	$2,887	64.8	58.7	64.1	60.5
Under 35 years	7,607	6,225	4,370	2,883	69.3	62.8	68.2	63.2
35 to 44 years	10,023	6,874	5,541	3,393	70.1	59.4	67.2	63.1
45 to 54 years	9,919	6,419	5,480	2,765	62.1	56.6	62.0	57.8
55 to 64 years	8,745	5,600	4,908	2,260	58.4	53.9	57.9	57.1
65 years and over	4,782	(B)	3,498	(B)	40.2	(B)	47.7	(B)
Wife								
Total	$3,490	$3,327	$2,097	$1,323	25.7	31.4	26.8	27.7
Under 35 years	2,973	3,307	1,749	1,340	27.1	33.4	27.3	29.4
35 to 44 years	3,276	3,673	2,126	1,488	22.9	31.8	25.8	27.7
45 to 54 years	4,041	3,412	2,357	1,303	25.2	30.1	26.7	27.3
55 to 64 years	4,159	3,050	2,388	942	27.8	29.3	28.2	23.8
65 years and over	3,326	(B)	2,062	(B)	28.0	(B)	28.1	(B)



TOMORROW'S FLEET—*The Maritime Administration is considering subsidies for 1972 for the construction of liquefied natural gas (LNG) carriers, such as the El Paso Natural Gas Co. LNG design above. These technically advanced ships will be built in American shipyards by U.S. shipbuilders and operate under the U.S. flag.*

Banner Year Predicted For U.S.-Flag Fleet Marked Increase Due By 1980

The shipping and shipbuilding industries are now entering one of the mostly dynamic peacetime periods in history.

In fact, according to Andrew E. Gibson, Assistant Secretary of Commerce for Maritime Affairs, forecasts indicate that foreign trade—the basic market for the U.S. maritime industries—can be expected to rise as much as 80 percent over the next ten years—more than 800 million tons.

Projected increase

"This projected increase in trade," said Gibson, "offers a major new market for American ships."

Gibson noted that as the Maritime Administration entered 1972, it is reviewing current applications or seriously discussing construction programs with operators involving more than 40 ships, with an estimated value that will exceed $1.8 billion.

"Many of these," he said, "are expected to materialize as actual contracts during 1972."

Basically the ships that the Maritime Administration is considering include several LNG tankers (liquified natural gas), supertankers in excess of 200,000 tons, barge carriers containerships, OBO's (oil-bulk-ore carriers), and tankers approximating 30,000-40,000 tons.

The LNG carriers and tankers—the first of which are yet to be approved for subsidy by the Maritime Administration—will enable the U.S. Merchant Marine to capitalize on a new and rapidly expanding market for imported natural gas and petroleum.

By 1980, it is predicted that the U.S. foreign trade movement will experience an 83 percent increase in liquid bulk cargo tonnage. American shipyards and shipping companies, especially with the energy crisis, will be able to capitalize on this opportunity.

As many as 80 LNG tankers of 120,000 cubic meter size may be required to meet the domestic demand for this type of fuel. To take advantage of this growing market, it can be expected that a substantial number of LNG tankers will be built in the U.S. and operated under the U.S. flag.

The energy crisis will also cause the market for petroleum to expand immeasurably.

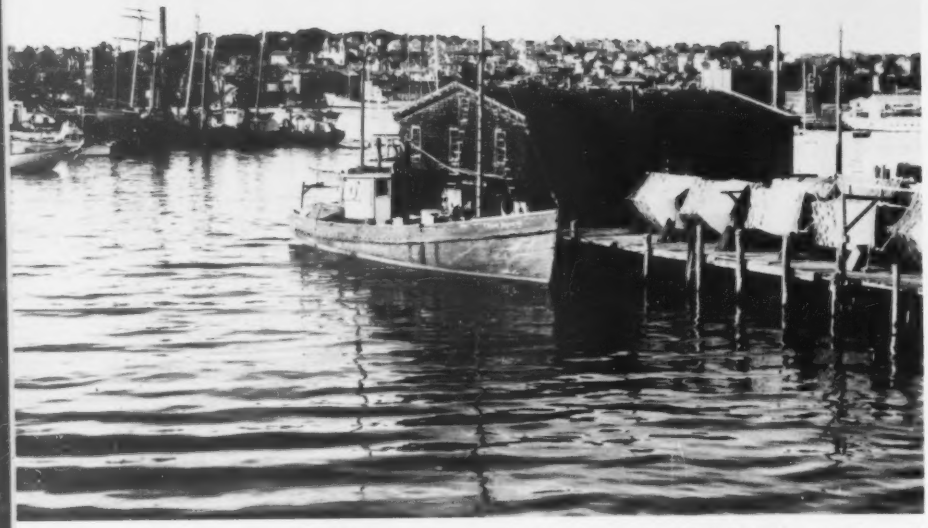
Gibson, in predicting an expansive year ahead for the U.S.-flag fleet, based his predictions on the firm foundation set during the past 12 months.

"During 1971," he stated, "many firsts and several advancements were marked down for the Maritime Administration and the Nation's shipping industry."

Among the achievements listed by Gibson in a year-end report were:

- New ships—During the year, the Maritime Administration awarded subsidized construction contracts covering nine new ships and nine conversions. These contracts were valued at over $320 million, of which the government will pay about $140 million.
- Financial aid—Financial aid available in the form of operating-differential subsidy helped the Merchant Marine. At the close of 1971, 12 companies held subsidy contracts which covered 207 ships.
- First subsidy—The first subsidies to bulk carriers under the Merchant Marine Act were granted in 1971, and have laid the groundwork for more to be approved this year.
- Promotional office—The Office of Market Development of MarAd became fully operational last year, and is assisting the U.S. Merchant Marine through promotional programs and identifying and exploring market opportunities for the shipping industry.
- New council—The National Maritime Council was established to promote greater shipper patronage of U.S.-flag ships.
- Research and development—Fifty-one R&D contracts were awarded during the year, many of which involved industry participation and cost sharing. These included studies on future propulsion systems, improved computer techniques, design innovations, oil pollution abatement, among others.

—Maritime Administration



GLOUCESTER HARBOR—*An Economic Development Administration study calls for expansions and new facilities at the State Fish Pier at Gloucester, Mass., the Nation's oldest and best-known fishing port, English-America's first private firm.*

An Old Industry Could Help Create Many New Jobs, Says Federal Study

A $7,200,000 project intended to protect and expand the historic New England fishing industry and help create 1,900 new jobs is recommended in a recently-completed study financed by the Federal Government.

The study was made for Commerce's Economic Development Administration by Frederick R. Harris, Inc., consulting engineers of Boston. It calls for expansion and new facilities at the State Fish Pier at Gloucester, Massachusetts, the Nation's oldest and best-known fishing port. Established 348 years ago, the Gloucester fishing industry can justly claim to be English-America's first private enterprise.

After centuries of ups and downs, and shutdowns incident to wars, the Gloucester fishermen have fallen upon new adversity. Foreign fishing vessels are exploiting their fishing grounds. Imports of fish and fish products from abroad have cut deeply into their trade. The catch of haddock, once a major feature of the local industry, has declined. Many waterfront structures are old and dilapidated, and while quaint and picturesque are not suitable for modern industry. Fires on the waterfront in recent years have caused extensive damage to terminal facilities and fish plants. There is a water pollution problem in the Annisquam River-Gloucester Harbor area.

To deal with the problem, the EDA study recommends a pier almost double the present size, modern seafood landing and processing facilities, diversification of the fishing effort, and a pollution abatement and waste treatment plant.

According to the engineering design, the existing 1,100-foot pier would be extended seaward about 585 feet from the present extreme, and then bend southward another 565 feet, conforming to the channel depth requirements. Three finger piers, 300 feet wide and ranging in length from 300 to 435 feet, would provide berthing for craft up to 125 feet.

Although the study acknowledges that a single giant plant enclosing the seaward portion of the pier would be more efficient, this is not regarded as practical under the circumstances. The small enterprise is an integral element of New England fishing. Thus the alternative plan calls for a number of small plants on the pier to receive and handle a diversified fishing catch. Automated unloading equipment would be installed to handle different fish species. A freezer plant would be placed beside the existing cold storage facility. New utilities and a sea-water intake would be provided for the pier extension.

In second place

In 1970, Gloucester was second among New England ports in the volume of food fish handled. New Bedford, Mass., was first. Currently, Gloucester handles an average of 90 million pounds of food fish a year, nearly one-third of the total for all New England ports.

However, the study says the Gloucester volume could be boosted to 300 million pounds annually, and that a highly organized, versatile and efficient fishery, using principles of good fish management, should be able to take four to five billion pounds of fin fish yearly from the areas covered by the Gloucester fleet.

The proposed improvements, according to the study, would allow Gloucester to process, in carrying out its diversification program, the following additional quantities of various species: herring, mackerel, and squid, 50 million pounds; ocean perch, 45 million pounds; northern shrimp and whiting, 25 million pounds each; cod, 15 million pounds; haddock, pollock, and ocean quahog, 10 million pounds each; deep-sea lobster and flounder, five million pounds each; butterfish, one million pounds; and cusk, wolf-fish and others, about two million pounds.

It is estimated that the activity, created by the diversion program,

would provide the following additional jobs in various operations: the herring take, 600; added supplies of ocean perch, 300; mackerel, 100; deep-sea lobster, 60; additional persons employed on fishing vessels, 75; the new freezer facility, 40; pollution abatement and waste treatment plant, 20; unloading fish, 20; cold-storage facilities, 67; supporting service industries, 610.

The study makes the point that, while the Gloucester seafood industry faces challenge from declining haddock resources and foreign competition, it actually has never exploited all available resources within range of the operation of its vessels.

"That this operational area," the study observes, "could produce very much more was clearly demonstrated by the exploitation by foreign nations of herring and silver hake stocks off this area and adjacent areas of the Northwest Atlantic Coast. The U.S.S.R. (Russian) activity alone doubled the landings of fish within a period of five years from Gloucester's prime fishing area. Total American catch dropped 98 percent to 32 percent from this prime area of interest . . . .

"The fish are within reach of Gloucester vessels. The prime problem is the processing of the variety of species best suited for marketing.

In its recommendations, the study said:

"The extension of the Gloucester State Fish Pier appears to be a sound economic investment which will provide needed new job opportunities for a chronically underemployed area.

"Considering all engineering aspects, it is feasible to design and construct the necessary platform, piers, and supporting facilities required. No unusual conditions have been found to warrant special structural systems or considerations.

"It is recommended that the program for extending the Gloucester State Fish Pier be implemented at the earliest possible date to provide the base for an economic resurgence of the Gloucester Fishing Industry." —*EDA*

SORTING THE CATCH—*Fishermen sort out their catch of male and female haddock at the end of a fishing day. The study, among other things, recommends automatic unloading equipment in a plant at Gloucester to handle different fish species.*

Business Calendar

Jan. 14—Savannah, Ga.—Dedication of Eisenhower Peace Center. Andrew E. Gibson, Assistant Secretary of Commerce for Maritime Affairs, will represent Secretary Stans.

Jan. 21-23—New York—78th annual convention of Northeastern Retail Lumbermen's Association. For information, the Association, 339 East Ave., Rochester, N.Y., 14604 (716-325-1626).

Jan. 23-28—Tucson, Ariz.—Basic Industrial Development Course, University of Arizona, accredited by the American Industrial Development Council. For information, John Swenson, Room 112, B.P.A., University of Arizona, Tucson, 85721.

Jan. 24 — Philadelphia — Plant Engineering and Maintenance Show, Philadelphia Convention Center. For information, Clapp and Poliak, Inc., 245 Park Ave., New York, N.Y., 10017.

Jan. 27-29 — Baltimore — National Black Enterprise Conference, sponsored by Congressional Black Caucus, at Morgan State College. For information, Black Caucus, 202-546-3425.

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government now have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints—the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary, U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.

SCIENCE & TECHNOLOGY REPORT

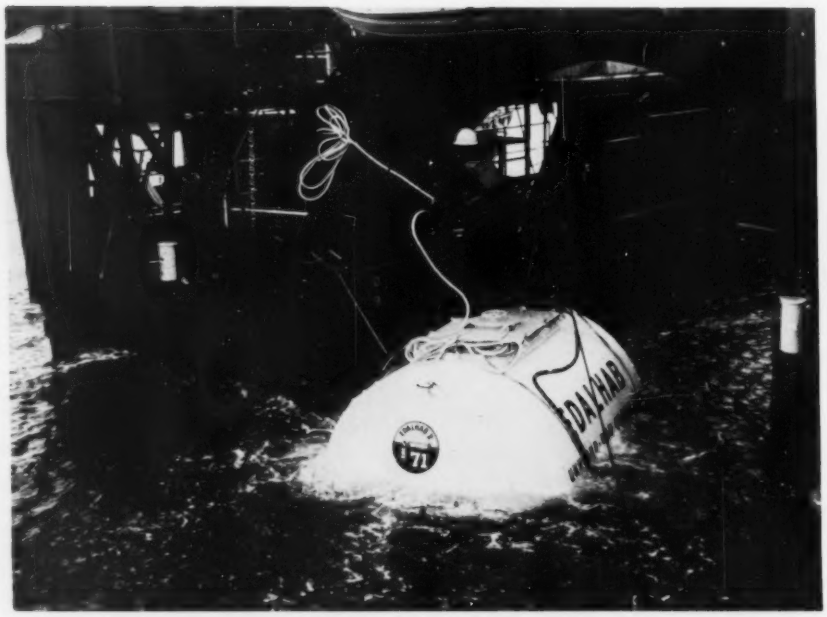
- Diver-scientists seek answers off Florida
- Senate approves Nice, Locarno agreements
- $6-14 billion market forecast in sewage systems in 20 years
- Uniform measurements among states important to industry
- Patents of special interest

Diver-Scientists Seek Answers Off Florida

A three-man mobile undersea laboratory will be submerged off the Florida coast near Miami January 27 to begin the longest and most ambitious undersea investigation ever undertaken by Commerce's National Oceanic and Atmospheric Administration.

The program is called FLARE for "Florida Aquanaut Research Expedition" and involves the use of a mobile undersea habitat supported by surface carrier. The marine research project will extend over a three-month period and include eight scientific projects to be undertaken in three locations, each in some 40 to 50 feet of water.

The FLARE diver-scientists will undertake research on coral reef communities, fish behavior related to traps and other fishing gear, chemical composition of seawater, geology of the reefs, marine plants and plant-eaters, seaweed, the ef-



PREPARATIONS UNDER WAY—*EDALHAB II, the small undersea habitat from which FLARE scientific explorations will be undertaken is prepared for its three-month mission off the Florida coast. About 40 diver-scientists and technicians will participate in the program. Life support is provided by the surface vessel LULU.*

fects of pollutants on coral formations and the efficiency of artificial reefs as attractors of marine life.

This is a part of NOAA's Manned Undersea Science and Technology (MUS&T) program which aims to develop the capability for research, technology, and engineering studies in all depths of the sea, for better use, understanding, and management of the ocean's resources.

Involved in this scientific investigation of nearshore regions will be two-non-Government marine institutions, four universities, three museums, a junior college, and several components of NOAA. A force of about 40 investigators and support staff will take part in FLARE on EDALHAB II, the three-man habitat of the University of New Hampshire, and LULU, the catamaran mother ship operated by Woods Hole Oceanographic Institution in Massachusetts.

One of the scientific teams is composed of two women and another employs a husband-wife combination. Several of the participants served on TEKTITE, an undersea habitat from which a number of marine experiments were conducted off the Virgin Islands, in 1969 and 1970.

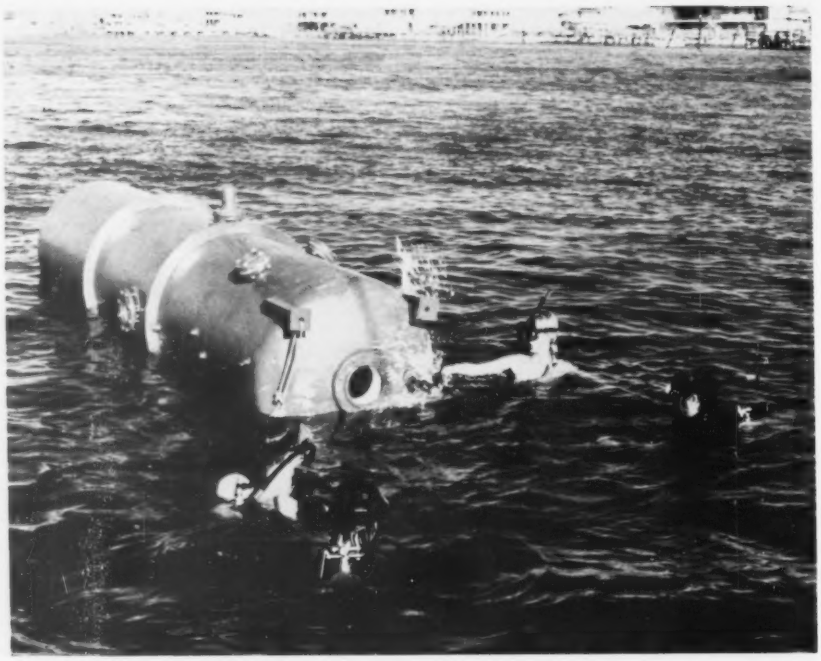
Explorer teams

Teams of two or three marine explorers, all fully trained in diving techniques, will be rotated aboard EDALHAB II. Each team plans to remain underwater for three to five days, either aboard EDALHAB II or Scuba diving nearby. Together, the 20-ton EDALHAB II and the 500-ton LULU can follow a wandering course if need be, with the habitat resting amidships in the arched aperture formed by LULU's twin hulls, between descents into the sea. LULU can also reemplace the submerged habitat without bringing it to the surface. Her two-compartment decompression chamber can stabilize divers from the habitat during a change of location.

UNDERSEA HABITAT—*This is an artist's concept of what FLARE will look like when the undersea habitat, EDALHAB II, is moored in 50 feet of water beneath its mother ship, LULU, on the surface. The mission begins January 27 and will last for three months off the Florida coast near Miami. Eight explorations are scheduled to be made from this mobile operation, the most ambitious undertaken by Commerce.*

PROGRAM COORDINATOR—*John G. VanDerwalker, scientific program coordinator for FLARE, will supervise all eight of the projects to be carried out. He will also participate in one of the undersea explorations.*

Special air systems will not be included aboard EDALHAB II. Physiologists have found that the human body is able to adapt to breathing air identical to the sea-level mixture (80 percent nitrogen to 20 percent oxygen) under the increased pressure experienced at depths of 100 to 150 feet. Blood and tissue adjust by absorbing, or becoming "saturated" with the greater gas concentrations caused by higher pressure. At 50 feet (the depth at which EDALHAB II will be anchored) no special atmospheric mixture is required for several days. At about the five-day mark, however, oxygen poisoning becomes a possibility and divers must be brought back to a more equable environment. When periods of more than five days underwater are required, a decrease in oxygen (to eight percent) allows divers to remain submerged for



UNDERSEA INSTRUMENT CHAMBER—*A new undersea instrument chamber that will be emplaced near the habitat, EDALHAB II, will be positioned vertically on the seafloor. It houses delicate instruments in a dehumidified atmosphere. Students at the University of North Carolina constructed the auxiliary habitat under the direction of Dr. J. Morgan Wells, one of the diver-scientists participating in FLARE.*

much longer periods, such as the 60-day submersion experienced by TEKTITE I aquanauts.

Nitrogen is not a problem short of 150 feet, provided decompression facilities are available to divers within a few minutes of surfacing. FLARE workers will be operating in depths of about 20 to 100 feet.

EDALHAB II was constructed and modified, with the aid of NOAA Sea Grant funds, by students at the University of New Hampshire Engineering Design and Analysis Laboratory, and its name is a combined form of the laboratory name. LULU was developed originally as the mother ship of the deep-diving submersible ALVIN, but turned out to be a capable carrier for EDALHAB II as well.

FLARE plans call for the two vessels to operate at three sites near Miami and the Florida Keys for five weeks after which operations will be suspended for about three weeks for overhauling and necessary alterations. Work will then be resumed for another three weeks at the Florida Keys site. FLARE is scheduled to end in mid-April.

Participating organizations

Scientists and technicians assigned to the various phases of FLARE are from NOAA's National Marine Fisheries Service installations at New Jersey, Rhode Island, and Washington; the Woods Hole Oceanographic Institution; the Rosenstiel School of Marine and Atmospheric Science, University of Miami; the American Museum of Natural History in New York City; the Los Angeles County Museum of Natural History; the Academy of Natural Sciences at Philadelphia; the Universities of New Hampshire, North Carolina, and South Florida; Trenton State College, N. J.; and Miami-Dade Jr. College.

Activated in August 1971, MUS&T has already sponsored operations involving submersible and habitat research in the Gulf of Maine, the New York Bight, the Florida Straits, and the Bahama Banks. —*NOAA*

Senate Approves Nice, Locarno Agreements

Prior to its adjournment last month, the U.S. Senate gave its advice and consent to the Nice and Locarno Agreements, two treaties relating to the classification of various kinds of industrial property.

The Nice Agreement, originally signed in 1957 and revised once a decade later, establishes an organization to which the U.S. will now belong that has promulgated and periodically updates a system of classification of goods and services to which trademarks are applied.

The Nice system, the most widely-used classification scheme for trademarks, is used by more than 60 nations as either their primary or secondary system. In July 1969, the U.S. Patent Commissioner adopted it as the secondary system for this country.

The second Agreement, Locarno, which was signed by 22 nations in 1968, establishes an international system of classification for industrial designs which generally are new, original, and ornamental features of an article of manufacture, protectable in the U.S. by a "design" patent. As with Nice, each nation party to Locarno, is free to utilize the system either as its principal or secondary mode of classification. The U.S. Patent Office has already been utilizing the Locarno system as a secondary mode since January 1969, and thus, has been fulfilling the principal obligation under the Agreement.

U.S. membership in these two treaties will be effective three months following formal notification to the Director General of the World Intellectual Property Organization in Geneva, secretariat for both Locarno and Nice Arrangements. —*Patent Office*

$6-14 Billion Market Forecast In Private Sewage Systems In 20 Years

Between 17 and 40 percent of the nation's population occupying individual homes constructed between 1970 and 1989 is projected to use individual sewage treatment systems, according to a recently-published MITRE Corporation report on technology assessment prepared for the White House.

A 20-year market of between $6 and $14 billion is projected by the report for installed individual sewage systems and a $2.1 to $3.5 billion demand for maintenance services is projected during the same period.

Between 800 to 9800 new centralized or community sewage systems are expected to be required, says the report, dependent upon the rate of individual system technology and plant design capacity, requiring capital outlays between $26 and $36 billion. If no new individual technology is introduced, between 1,100 and 11,000 centralized systems would be required with capital outlays between $36 and $41 billion.

Five problem areas

These conclusions are contained in a study of water pollution and domestic wastes, one of five national problem areas studied by MITRE under contract to the Office of Science and Technology in the Executive Office of the President. Other reports concern automobile emission standards; sea farming; introduction of industrial enzymes; and computer and communication networks.

National leaders have spoken of the need for developing a national technology assessment capability, particularly the capability to anticipate and influence the impacts on society of new technology with greater comprehension and confidence.

Both houses of the Congress have had legislation to establish Congressional Offices of Technology Assessment. The National Environmental Policy Act of 1969, in effect, promotes the technology assessment principle by requiring all Federal agencies to anticipate the total environmental consequences of their programs and to take steps to mitigate adverse impacts of these programs.

In May 1970, the Office of Science and Technology and the MITRE Corporation undertook a jointly funded exploratory technology assessment project. Objective of this project has been to lay the foundations for methodology that can be used to make assessment studies in many different fields of technology.

The results published by MITRE, a non-profit systems engineering research firm, delve into the various problem areas defined.

W. T. Knox, director of Commerce's National Technical Information Service (NTIS) which is distributing the report, calls the series the most detailed and yet comprehensive look ever taken at technology assessment.

MITRE finds that close to one-half of the two-thirds of the total population using sewer systems receive inadequate waste treatment. The bulk of the population not using sewage systems depend upon individual septic tank-soil absorption systems. Present individual system technological practices are not considered suitable for application in over two-thirds of the country, says the report.

It points out that centralized systems ultimately depend upon the assimilative capacities of surface waters. This has led to the pollution of rivers and lakes which has reduced the availability of drinking water supplies, unbalanced ecological systems, detracted from recreational areas, caused health hazards and aesthetic nuisances, and destroyed shellfish fields in coastal regions.

Natural phenomena

The technology of effective centralized waste treatment, with few exceptions, employs natural phenomena which have been at work for millions of years, according to the report. Although efforts to develop advanced treatment techniques are under way, several factors indicate that a large portion of the capital equipment in place during the next two decades will use today's technology. Among these several factors are: on-going and proposed large-scale immediate attacks on the nation's water pollu-

Dimensional Accuracy Theme Of Standards Conference

A conference concerned with "Dimensional Accuracy in Manufacturing" is scheduled at Gaithersburg, Md., by Commerce's National Bureau of Standards October 30-Nov. 1 to focus on problems associated with the increasing sophistication of modern production machinery.

Experts in the field of metrology, representing industry, universities, and standards laboratories, will meet to discuss the state-of-the-art and recent advances in metrology pertaining to design and production of machine tools, numerical control systems, gages, precision parts, lasers, and computers.

Purpose of the conference is to help NBS properly orient its measurement research toward the anticipated needs of industry and to acquaint industry representatives with the progress and trends in measurement science.

The Conference is open to anyone interested in various aspects of metrology. The tentative fee is $50. Further information may be obtained from A. G. Strang, Room B-164, Building 221, National Bureau of Standards, Washington, D.C. 20234.

—*National Bureau of Standards*

tion problems; the long-lived nature of water pollution control assets; and design practices that match the size of facilities to long-term projections of future demand.

Recent social innovation

"The widespread use of sewer systems is a relatively recent social innovation," the report states. "It grew out of the need to remove domestic wastes from population centers. Definitive proof of disease transmission through water was provided only 100 years ago. Until very recently, individual septic tank systems were found predominantly in rural areas. As a consequence, little effort was expended to understand their proper design and operation.

"The building boom after World War II caused widespread utilization of these systems in suburban areas typically beyond the limits of existing centralized systems. Lack of a sound base of technical knowledge relating to the use of such systems in this new environment led to many system failures. Widespread application of knowledge gained from subsequent studies of the complex biological, physical, and chemical processes involved in soil systems has not yet been achieved."

The solution of this problem and others with which the study is concerned was not the primary objective of the contract. Rather, it was to uncover general principles of technology assessment by using these particular technologies to serve as cases. They used these principles to develop an analytical framework and procedure for anticipating the social impacts of any major technological shift.

The report on auto emissions concludes that small changes in technology or emissions control actions could produce major social impacts. It provides the framework for relating the costs incurred with costs saved in improvements in air quality, health, and national welfare.

The report on computers and communications networks suggests organizing research, development and monitoring programs; legislative and education programs; investigating computers impact on employment and unemployment; solving security and privacy problems; and investigating copyright and patent problems.

The report on industrial enzymes forecasts trends, and developments to 1980-1990 and covers the direct and indirect uses of enzymes in products.

The report on sea farming or mariculture discusses abating malnourishment through economic stimulation in 67 selected developing countries. Primary purpose of mariculture development, says the report, would not be for food production for internal consumption but for export which would provide an increased GNP.

The MITRE-OST Technology Assessment Series can be ordered from the National Technical Information Service, Springfield, Va. 22151. The complete set is available both in paper at $31.50 per copy and microfiche for $9. Each volume may be purchased separately also.

—NTIS

Uniform Measurements Among States Important To Industry, Consumers

When the State of Kansas recently received a new set of weights and measures standards from Commerce's National Bureau of Standards, it became the 32nd State to do so under a program to replace the standards of all 50 States. The sets include standards of both the customary and metric measurement systems.

Thomas M. Stabler, Chief of Standards' Office of Weights and Measures, presented a set to Governor Robert B. Docking in a ceremony in the Senate Chamber of the State Capitol Building at Topeka.

Each new set includes standards of mass (weight), length, and volume and necessary laboratory instruments, including high-precision balances, all specially designed to meet State weights and measures requirements. Each set costs the Federal Government about $80,000 including calibration, installation, and training of laboratory personnel. The State contribution to the program, in the form of new or expanded laboratory facilities and better qualified personnel, is considerably more than the Federal cost.

Many of the standards and instruments used by the States in weights and measures administration were provided by the Government a century or more ago. The Bureau of Standards is supervising replacement of the State standards to update and extend measurement competence throughout the nation, as required by scientific and technological advances.

Importance to industry

The importance of these standards to industry and the consumer was described when the State of Minnesota recently received its set of standards. Addressing the dedication ceremony, Kenneth S. Jensen, Maintenance Manager of the 3M Company's Center at St. Paul, Minn., said "it is imperative that our customers be assured that our products are fairly and accurately described. It is critically important to the customer that he or she has confidence that the weight of the material in the box of goods or the can of fluid purchased is, in fact, that which is stated on the container label.

"It is equally critical to the manufacturer that the same conditions hold. The customer has a right to expect that the product will be at least as much as specified and would prefer that it exceed the

REFLECTION IN A MASS—*This 30 kilogram mass standard is part of the package provided by the National Bureau of Standards in the program to improve the measurement capabilities of state weights and measures laboratories. William H. Gallagher, Jr., physical science technician at NBS, making a mass determination, is reflected in the top of the standard. These are important to industry.*

amount designated. The manufacturer recognizes that he has an obligation to meet the specified quantity for there are few things which cause greater dissatisfaction to a consumer than to believe he has not received true measure for his purchase.

"The manufacturer has an additional constraint if he is to be successful. This constraint is one of competition with others who make similar products and compete for the customer's favor. These competitive forces do not allow a manufacturer to consistently put a lot more in the package than is specified on the label, for if he does, a distinct loss of profit is incurred; a profit which is necessary in support of his research and development programs for improving that product or other new products and services, money which allows him to pay the wages of the additional personnel who may be needed to support those programs which have not yet reached the market place.

"Therefore, the manufacturer in the real proving ground of success, the market place, is vitally concerned with the units of measurement. How much does it weigh, how long is it, what is the volume—all critical, for they help determine customer satisfaction and company prosperity.

"Even before a product reaches the market place, the manufacturer is vitally concerned with these units. The laboratory which may conceive a new product formulation can pass this formulation along to the pilot plant for small scale evaluation only if the units of measurement are well defined. The laboratory quantity may be but a few hundred milliliters or fluid ounces and from the individual components which may weigh only milligrams the pilot plant attempts to scale the process up to kilogram level. Each group must know that the standards of mass and volume they use are consistent in order that the scale-up can be effective.

Consistent units

"The pilot plant, in turn, must be assured that the units it specifies for production quantities are consistent with those of the manufacturing plant which may be located within the State or in another State so that the end product is what was intended back at the laboratory stage.

"From product conception to consumption, a common thread runs throughout. That thread is consistency of measure whether we talk about minute quantities at the laboratory level or freight car quantity, at the production level or aerosol can quantity at the consumer level. That same thread must relate these quantities whether we are transferring the material from one laboratory to another, from one state to another and in our multinational company, from one country to another. How very critical it is, the standard by which these quantities have been measured."

—*National Bureau of Standards*

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Brick siding. Brick siding for covering building walls simulating antique, used or old brick consisting of a number of rectangular sheets of fiberglass fastened to the wall with each horizontal row of sheets positioned in overlapping relation with the adjacent row, each sheet formed to simulate rows of old brick having chips, and distress marks. To achieve authentic appearance that is in keeping with the aesthetics of proper masonry practices, the end bricks on alternate rows along one side of each sheet are grooved to receive the end portion of the bricks of an adjacent sheet so that these bricks appear to span the mortar joint of the adjacent rows of bricks. The tongue and groove bricks, when joined, appear as a single brick having a distress mark. Patent No. 3,621,625 issued to Robert S. Medow, 9225 Collins Ave., Surfside, Fla. 33154.

Lawn-perforating apparatus. A lawn-aerating apparatus for punching holes in terrain consisting of an electric motor carried on a wheeled frame and coupled to a number of spiker rod elements. In a first embodiment the rotary drive cooperates with a cam mechanism, which is normally decoupled but engages when pressure is applied against the tips of the spiker rod elements, to vertically reciprocate the rods at relatively high frequency to drive them into the ground. In a modified embodiment, the spiking elements are in the form of augers which are coupled by a gear arrangement for common rotation by the motor so as to screw them into the ground. In both embodiments the wheels and frame are carried on a spring-biased suspension which assists in the in-and-out motion of the lawn perforator as it is rolled along the ground punching holes in the terrain. Patent No. 3,621,920 issued to William R. Brown, 1415 Thompson Rd., Woodburn, Ore.

Crushing plant. Input material comprised of stone, gravel or other material to be crushed is screened at a receiving station to separate the largest pieces of input material into two different sizes. The largest pieces are fed into an adjacent primary crusher at one of a plurality of zones at which crushing takes place. The second largest pieces are conducted past the first designated crushing zone, in overhead relation, and delivered to crushing means at another zone. Screens located under the crushing means at each crushing zone vibrationally conduct carryover material of larger than finish size to an elevator, from the discharge means of which crushed but still oversize material is fed to crushing means at one of the crushing zones other than the first designated crushing zone. The crushing plant has the customary primary and secondary crushers, and either or both of them can consist of first and second stage crushing devices. Patent No. 3,622,089 issued to John N. Quinn, Madison, Wis.; and assigned to Johnson Welding & Equipment Co., Inc.

Garage-heating system. A garage-heating system for use with normally closed garages consisting of at least one gas-fired infrared heater mounted on the ceiling of the garage, the normal infiltration of air through a garage outside wall being sufficient to permit operation of a gas-fired infrared heater of optimum capacity without the need for special air supply ducts or venting. Patent No. 3,622,133 issued to Howard E. Gilbert, Novelty, Ohio, and assigned to Van Dorn Company of Cleveland, Ohio.

Moving irrigation system. A composite, mobile laterally-moving sprinkling pipeline arranged and controlled that each end of the composite line alternately can be caused to travel a predetermined distance along a path with the opposite end of the composite line temporarily being substantially at the center of curvature of such path and with the entire line thus swinging forward in alternate angular direction. Patent No. 3,613,703 issued to William H. Stout, 223 N. Jessup Street, Portland, Ore.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Science Calendar

March 1-3—Washington, D.C.—Shoreham Hotel. 13th Scintillation and Semiconductor Counter Symposium. Sponsored by Nuclear Science Group of the Institute of Electrical and Electronics Engineers, Atomic Energy Commission, and the National Bureau of Standards.

March 1—Gaithersburg, Md.—National Bureau of Standards. IEEE Computer Society.

March 22-24—Gaithersburg, Md.—National Bureau of Standards. Conference on Accuracy in Spectrophotometric, and Phosphorometric Measurement.

April 24-27—Washington, D.C.—American Physical Society, Sheraton-Park Hotel.

April 25-28—Orlando, Fla.—Sixth annual Inventors' Congress held concurrently with Florida Industries Exposition which sponsors it in cooperation with the Commerce Department.

January 10, 1972

International Commerce

- U.S. foreign trade outlook, 1972
- Commercial specialists meet in Africa
- U.S. toolmakers in the USSR
- Prospects in the Italian market
- Impact of Chilean changes

Worldwide Upcoming Major Trade Fairs

Newsmemo

Export incentives are so much in the headlines these days that an important one may have been overshadowed. It was the final step cut in the Kennedy Round tariff reductions. About 30 of the major industrialized nations on Jan. 1 completed the fifth and last cut in a process that began on Jan. 1, 1968. The action took place under the auspices of the General Agreement on Tariffs and Trade (GATT). Next on the GATT priority list: reduction of non-tariff barriers to trade.

Another Jan. 1 change working for the benefit of U.S. exporters is the DISC provision added to the Internal Revenue Code. DISC means Domestic International Sales Corporation. Broadly speaking, under the new provision, most companies engaged in export can set up such a corporate subsidiary and get important tax deferral benefits. For an explanation of how the DISC principle will operate see pages 33-35 of the Dec. 27 issue of this magazine.

Commerce Secretary Stans has hailed the new DISC provision, saying that it "has good potential for helping to correct the negative balance of U.S. trade and also for creating new jobs at home." He commented that "By allowing partial tax deferral on export income, we will enable our domestic industry and domestic labor to compete more effectively with those of other nations." He said that the Departments of Commerce and the Treasury for nearly two years had urged the adoption of this export incentive plan.

Expect the various State industrial promotion agencies to continue aggressive activities overseas this year. One such example is an April business mission by the State of Virginia to Japan and Australia. Gov. Linwood Holton, who led such a mission to West Germany in 1971, will again act as the leader. His group will include key executives from industry, ports, agriculture, banking and transportation. Virginia's Division of Industrial Development reports that it has been able to attract more than $100 million in manufacturing capital expenditures from Western Europe in the past two and a half years and hopes to expand this activity in the Far East.

Note the reliance by experienced promoters on trade missions as a business vehicle. Virginia considers this visit--including leadership from its Executive Mansion--vital to its international development program despite having permanent offices overseas. Virginia's Industrial Development Division, its Port Authority and its Department of Agriculture and Commerce maintain a joint office in Brussels, and the Port Authority has an office in Tokyo.

International Trade Winds

REFINERY EQUIPMENT—Babcock & Wilcox, New York, is supplying three package boilers valued at $600,000 to Haifa Refineries Ltd., Israel. Two of the units will be installed at a new refinery in Ashdod, and the third will be located at Haifa. All will be used to generate electric power and process steam. The boilers are part of a $45 million expansion program that includes construction of a new plant at Ashdod. Startup of the Haifa unit is scheduled for April, and the Ashdod units for July.

HOTEL MANAGEMENT—Inter-Continental Hotels of New York has signed an agreement with the Saudi Arabian Government to manage two hotels currently under construction in Riyadh and Mecca. The 200-room hotels, part of international conference center complexes, are scheduled for completion in late 1972. In addition to managing the hotels, Inter-Continental will supply technical assistance during the completion stages of construction, supervise interior and graphic design, and develop and carry out a training program for the hotel staffs. A complete marketing program, including worldwide sales and referrals, advertising and promotion will also be handled by Inter-Continental.

COMPUTERS—Honeywell Ltd. of Toronto and Caribbean Computers Ltd. (CCL), a newly-formed Bahamian company, have reached agreement for the sale and service of Honeywell computers in the Bahamas. CCL will purchase computers and peripheral equipment, including data-entry devices manufactured at the Honeywell plant in Bowmanville, Ontario, from Honeywell for lease or resale in the Bahamas Islands. The agreement provides that CCL may, at Honeywell's discretion, extend its activities into other areas of the British Commonwealth Caribbean area. Honeywell will train CCL's sales and service personnel and make available technical backup and support. Honeywell Ltd. is a subsidiary of Honeywell, Inc., Minneapolis.

OIL EXPLORATION—Occidental Petroleum Corp. has launched a marine geophysical program on a 736,-000-acre concession offshore Nigeria in preparation for drilling activities expected to begin during the first quarter of 1972. The geophysical ship Arctic Seal has begun conducting digital seismic work and will travel about 2,000 miles in covering the concession area in the initial phase of the program.

Year's Outlook For Trade: 'Fighting Chance' Of Balance

A "fighting chance" to achieve a balance of trade this year is seen by Secretary of Commerce Maurice H. Stans in a statement on the U.S. Foreign Trade Outlook for 1972.

This will be the beginning, in his view, of the trade turnaround expected from the revaluation of nearly 12 percent in the U.S. favor from the old exchange rates. From this and other aspects of the Administration's New Economic Policy, it is expected that exports will grow by about 9 percent in 1972, and imports somewhat less.

More steps needed

However, the Secretary pointed out, the task of expanding U.S. exports to a level which will bring a satisfactory trade surplus requires further important actions:

► Hard bargaining to persuade trading partners to remove or modify those non-tariff barriers, such as the European Community's Common Agricultural Policy, which deny U.S. goods legitimate markets.

► Efforts to combat the rising tide of tariff and quota discriminations against U.S. goods, such as the preferential trading agreements being extended by the Common Market to non-member countries, with their provision for reverse tariff preferences.

► A vigorous concerted program of export expansion, aimed directly at providing maximum help to U.S. exporters.

Secretary Stans noted that U.S. exports will be helped by the recently enacted DISC (Domestic International Sales Corporation) law. This measure allows a domestic subsidiary engaged in exporting to defer income taxes on half of its income, thus reducing the current tax advantage in producing abroad.

The Export-Import Bank's operations have been improved and expanded by new legislation proposed by the Administration, and this will assist vigorous export promotion by eliminating hampering credit restrictions, he said.

Further, the prospects for increased exports to the USSR and other socialist countries, including both manufactured goods and agricultural products, are regarded as the brightest in many years.

On the negative side, the Secretary noted the possible effects of U.S. dock strikes. A prolonged renewal of work stoppages would virtually guarantee a trade deficit in 1972, since these strikes curtail exports much more than imports, he declared.

Detailed forecast

The projected improvement in the U.S. merchandise trade position—to a rough balance of exports and imports from an estimated $2 billion deficit in 1971—rests on the assumption that there will be a substantial favorable impact on U.S. foreign trade from the realignment of major currencies.

Had there been no depreciation of the dollar vis-a-vis other currencies, a significant enlargement of the trade deficit would have been a certainty. Given the nearly $100 billion in two-way trade expected this year and the difficulties inherent in forecasting the impact of the widespread currency shifts, the "rough balance" should be interpreted as the midpoint of values which range from a small deficit to a small export surplus.

In general, the cyclical setting expected for 1972 is one of strong, above average growth in the U.S. economy and continued moderate economic advance in most major foreign markets. These developments, in the absence of the new monetary measures, would have a vigorous stimulating effect on imports, on the one hand, and a restraining influence on exports, on the other.

It is estimated that only a portion of the expected trade adjustment that will stem from the currency changes will be felt this year. Not only does it take considerable time before price changes affect demand patterns, but foreign producers may, at least in the short run, decide to absorb part of the revaluation effect in an effort to preserve market shares. The full impact probably will not be evident before 1973.

In 1971, exports (excluding military grant-aid) climbed by 3 percent to about $44 billion. This advance was the smallest in ten years and was mainly attributable to a slowdown in foreign economic growth. This year, U.S. exports will benefit from the competitive advantage gained from the depreciation of the dollar relative to other major world currencies, but the continued lack of buoyancy in foreign economies and the prospect of declines in agricultural and aircraft deliveries will probably hold the export rise to around 9 percent.

Imports climbed sharply to about $46 billion in 1971, a 15 percent increase over the previous year. The strong advance mainly re-

PHOTO ON PAGE 33—About 1,000 major trade fairs now scheduled in nations around the world await the interest of export-minded U.S. companies. A list of these fairs begins in this issue on Page 53; it will be concluded in the Jan. 24 issue. Activity at one of these important trade exhibitions, Europort at Amsterdam, The Netherlands, is depicted on Page 33. A story about the results of the Commerce Department's U.S. exhibit at this show is on Page 44.

flected the improvement in U.S. economic activity and heavy strike-related purchases of a number of foreign products. Prospects are for a considerably slower advance in imports this year, given the absence of strike-induced inventory building and the prospective rise in prices of many foreign goods caused by the dollar depreciation which should dampen demand for foreign products.

U.S. export markets

The economic boom underway in Canada is expected to continue through 1972 and U.S. exports to that country, our largest individual market, should climb at a rapid rate again this year. Rising consumer spending and business investment are the major factors in this favorable outlook, augmented by the prospect of another increase in shipments of automotive products to U.S. subsidiary companies.

The outlook is good for an increase in U.S. exports to Western Europe. Sales to the EEC should advance over last year's static level, but the gain is not expected to be large as economic growth in the Common Market will continue below potential. Moreover, much of the economic advance will stem from consumer spending and public expenditures which do not provide the same stimulus to U.S. exports as capital investment. Sales to West Germany will probably show another small rise, but shipments will continue to be dampened by the sluggish demand in the capital goods sector. The outlook for exports to France appears somewhat brighter this year, however, as economic growth in that country will be the most rapid among the EEC members. Exports to the United Kingdom also should recover from last year's decline, responding to an expected strong increase in real growth there.

Although economic growth in Japan is likely to be moderate, U.S. sales to that country are projected to increase in coming months in contrast to the decline recorded last year. In addition to the favorable exchange rate changes between the dollar and yen, exports should benefit from an acceleration in the growth of output in Japan.

A faster rise is foreseen in U.S. exports to the developing countries in 1972. Positive factors include another increase in the foreign exchange reserves of many of the major countries in this group, and the greater competitiveness of U.S. goods vis-a-vis products from Europe and Japan resulting from the new exchange rates. Prospects are particularly bright for sales to the Near East, where petroleum revenues have increased sharply, and to Africa, where ambitious development programs are continuing. A substantial advance in U.S. exports to the American Republics is also indicated on the basis of expected economic growth in that area and favorable foreign exchange positions in a number of countries.

Continuing the trend in recent years, AID and PL-480 financed exports will account for a smaller proportion of our deliveries to the developing areas. Little change from 1971 levels is anticipated in shipments under these programs.

Reflecting the current thaw in political and economic relations with the USSR and the other Communist countries of Eastern Europe, exports to this area are projected to rise sharply. The Soviet Union will receive the largest portion of the anticipated increase.

Reduced import growth

The prediction of a slower import rise hinges primarily on the expected reduction in demand for foreign goods resulting from the rise in import prices due to the dollar devaluation. Moreover, the absence of major strike threats in 1972 will eliminate the possibility of heavy imports to build up inventories. Slower increases in consumer spending should moderate arrivals of consumer goods. Industrial production in this country will rise strongly in 1972, indicating another advance in receipts of industrial materials, but demand will be restrained by the relatively high levels of inventories of some commodities. Purchases of foods and beverages will rise again but, without the need for strike-hedge stockbuilding, the increase should be moderate.

The final Kennedy Round tariff cuts were implemented on Jan. 1 by the United States and our major trading partners. This action may give further stimulus to trade in both directions, though the effect is likely to be small. Duty reductions averaged one-half of one percent.

Dockstrikes affect 1971 trade

Foreign trade in 1971 was strongly influenced by dockstrikes at all U.S. ports. Waterborne trade through the ports accounts for roughtly half of U.S. exports and imports. The West Coast strike began July 1 and lasted more than three months before it was ended by a Taft-Hartley injunction. The longshoremen's strikes at most East and Gulf Coast ports began on Oct. 1 and were halted by injunction on Nov. 26, although at certain ports work was resumed temporarily during the period. Quantitative estimates of the dockstrikes' net effects are not yet possible, but past experience indicates that larger losses occur in export shipments than imports because foreign buyers turn to other supplies while import losses are usually compensated for by advance purchases or post-strike make-up deliveries.

Nonfarm exports to gain

Nonagricultural exports, after recording only a marginal increase in 1971, are expected to climb more rapidly this year and will probably account for the entire advance in U.S. shipments. In contrast to the strong increase recorded in 1968 and 1969, machinery sales rose very little last year as investment spending in major markets tapered

off. These shipments are expected to increase at a faster rate in the coming twelve months. The more favorable outlook for machinery exports is based on recoveries in deliveries of certain items which fell sharply last year, beneficial effects of exchange rate changes, and continued, though still relatively modest, investment outlays.

Where gains are seen

Sales of computers and parts are likely to improve on their rather lackluster performance of 1971. Although a considerable portion of the computer market abroad is served by overseas subsidiaries of U.S. companies, deliveries of complete units should continue to rise and shipments of parts to affiliated firms for assembly will add to the advance. Exports of metalworking machinery declined by about 3 percent in 1971, as a step-up in deliveries of rolling mill machinery and metal-forming equipment was offset by a steep drop in shipments of metal-cutting machine tools to Canada and Japan. An advance is projected for metalworking machinery this year, with ongoing programs in Latin America to expand steel production continuing to boost exports of rolling mill items.

Last year's decline of about one-tenth in exports of electronic components stemmed largely from reduced demand in Western Europe for transistors and color television picture tubes. A recovery is projected for these exports, but the gain will not be as large as the rapid growth achieved in the 1960s.

Shipments of transportation equipment rose sharply in 1971, accounting for virtually all of the nonagricultural export advance. Prospects are for a considerable reduction in this growth in 1972.

Automotive deliveries to Canada climbed by about one-third last year reflecting the make-up following the General Motors strike, increased Canadian auto production —largely of compact and subcompact cars destined for the U.S. market which stimulated the outflow of parts—and an increase in Canadian auto demand. Another rise is projected for these exports in 1972, based on prospects for continued buoyancy in sales of North American-type cars, but the advance will be considerably more moderate than last year.

Deliveries of civilian aircraft, which climbed sharply in the two previous years, are expected to decline. A major factor in the decline will be reduced exports of jumbo jet transport planes which accounted for most of 1971's increase.

After registering only a small gain in 1971, exports of chemicals are likely to expand at a faster rate in the next 12 months. Shipments of organic chemicals, which declined last year, should resume their growth, and pharmaceutical exports are also expected to recover from a drop in 1971.

The marked slowdown in foreign industrial production last year strongly depressed demand for U.S. exports of metals and other industrial materials. Deliveries of iron and steel-mill products fell sharply from the unusually high levels recorded in the previous two years when world steel demand was booming and shortages developed. In 1972, steel exports should hold about even with last year's level since no major change in world demand is anticipated.

The small increase in coal exports recorded last year stemmed entirely from price increases as the quantity shipped fell by more than one-tenth. Deliveries in 1972 are not likely to increase much in the absence of a major rise in world steel production.

Dip in farm exports

Larger supplies of farm products abroad and limited export availabilities of certain commodities in this country were the major reasons for holding the rate of growth of U.S. agricultural exports to less than 5 percent in 1971. Losses attributed to longshoremen's strikes were also a negative factor. In general, foreign supplies are expected to remain plentiful this year, and a moderate downturn in U.S. agricultural exports is seen.

Wheat exports rose moderately in 1971, but will probably fall this year since supplies in the major importing countries will be large and competition among wheat exporting nations is expected to remain keen. Prospects for corn exports are improved from last year, though prices will be lower. The advance in 1972 is likely to be moderate, despite large purchases by the Soviet Union scheduled for the first half of the year.

Soybean exports climbed by almost one-tenth in value last year due to higher prices, but the quantity fell mainly because of tight U.S. supplies. Supply limitations will again affect exports negatively in 1972, though foreign demand will continue strong. On the other hand, shipments of soybean and other vegetable oils will decline due to increased competition from other oils and political difficulties in South Asia.

After a sharp climb in 1971, exports of cotton are expected to drop back this year. U.S. exportable supplies will again be restricted, prices will be high, and foreign cotton production is likely to increase.

Import slowdown seen

Purchases of consumer goods led the U.S. import advance in 1971. Entries of these products increased faster than purchases of domestically produced items, raising the import share of U.S. personal consumption expenditures for the tenth consecutive year. This ratio climbed from 2.2 percent in 1961 to about 5.5 percent last year. Rising consumption expenditures and the firmly established position of foreign suppliers in the U.S. market point to a rise in imports of consumer goods in 1972, but

the advance should be moderate.

The increase in consumer goods imports in 1971 would not have been so large except for the acceleration in deliveries of automotive products. Arrivals from Canada were particularly buoyant in the first few months of the year following the strike against General Motors in late 1970. Strong U.S. demand for compact and subcompact models, many of which are produced by U.S. subsidiaries in Canada, sustained the large expansion. Continued heavy demand, but without last year's strike-related arrivals, will result in a more moderate import rise in 1972.

Auto entries from Western Europe and Japan increased by almost 50 percent last year, reflecting both greater demand for foreign-type cars and inventory buildup in anticipation of the U.S. dockstrikes. In 1972, these imports should rise under the stimulus of greater consumer spending and the continued buildup of dealer network. However, vigorous competition by U.S. producers in the small-car market and higher prices for foreign cars, reflecting the revaluation of major currencies, should significantly retard import growth.

TV, shoe imports rise

Entries of television sets also rose sharply last year. Continued increases in production abroad of brands under U.S.-labels and heavy consumer demand will raise purchases this year, though higher foreign prices should exercise some restraining influence on imports.

Imports of footwear continued on an uptrend in 1971, although at a pace slightly reduced from the preceding year. Entries should again rise in 1972, but probably not as rapidly. Motorcycle arrivals will also increase, but the expansion should be below last year's 50 percent rise as demand moderates.

Despite a marginal decline in U.S. industrial production last year, imports of industrial supplies rose by over 10 percent. Increased steel purchases accounted for a large part of this advance. Sluggish demand for certain commodities and the expected reduction of large inventories portend a smaller rise in imports of these supplies.

Steel entries rose by a third last year, reflecting vigorous strike-hedge inventory building here and greater availabilities abroad. This year, excess production capacity and the absence of strike anticipatory stockbuilding indicate that steel imports will fall from 1971.

Following a two-fifths advance in aluminum imports last year as stocks were increased in anticipation of an industry-wide strike, entries should decline this year.

Imports of industrial and agricultural chemicals rose by 20 percent last year, with organic chemicals and dyes accounting for much of the advance. Entries of manufactured fertilizers — especially from Canada and Mexico—were also buoyant. Dampened demand from the expected rise in foreign prices, along with greater domestic production, indicate a more moderate advance in chemical imports. The recent arrangements controlling imports of wool and man-made fiber textile and apparel products from Japan, Hong Kong, Taiwan and South Korea should be effective in reducing the growth rate of these imports.

Arrivals of crude petroleum rose sharply in 1971 as a result of larger quotas for Canada, declines in shipping costs which stimulated imports from the Near East, and higher prices. Another sizable, but less rapid increase is expected. Increased construction activity here accounted for last year's surge in lumber arrivals. There should be another advance in 1972, but probably not as strong.

Imports of capital goods will expand again as U.S. plant and equipment expenditures increase. Higher prices because of currency realignments should keep the import rise to moderate levels.

The 10 percent advance in machinery purchases last year accounted for most of the increase in receipts of capital goods. The inflow of textile machinery was particularly heavy, rising by almost half. The rate of increase for 1972 should be lower as foreign companies begin production at their newly established facilities in this country. Arrivals of farm machinery will again increase as American firms continue to import components from affiliated companies abroad for assembly here. The strong expansion forecast for the U.S. economy will stimulate entries of office machines.

Other import trends

Arrivals of trucks from U.S. subsidiaries in Canada were higher in 1971 as shipments recovered from the 1970 GM strike. Further increases are forecast for this year. Imports of aircraft parts, especially from American affiliates in Canada, rose by one-fifth in 1971. Since many of these parts and components are used in jumbo jets and since production of this type of aircraft will not gain as rapidly as last year, arrivals should not change significantly in 1972.

Much of last year's 5 percent rise in imports of foods and beverages represented inventory building of certain commodities in anticipation of strikes at major U.S. ports, though higher prices also made a contribution. In 1972, entries should continue to advance but probably more moderately.

Stockpiling prior to the port shutdown had a strong stimulating effect on arrivals of coffee and alcoholic beverages last year. As demand for coffee is stable, the expected inventory reduction indicates a smaller import volume in 1972, though higher prices may boost values. The growth rate for imports of alcoholic beverages should also be reduced as stocks return to normal size. Smaller rises in sugar entries are forecast in anticipation of expanded supplies from Hawaii. Meat purchases should continue on an uptrend.

U.S. Officials Cite Steps To Spur Business In Africa

The invisible man in most of Africa today is the American businessman.

But a group of U.S. Government officials, determined to change this situation, met in the Ivory Coast recently and agreed that the following steps should be taken to that end:

► Involve every U.S. Foreign Service representative in Africa in export promotion, including Ambassadors.

► See that Africans have quick, complete access to the services of U.S. technicians and specialists who as they go about their planning, will recommend U.S. goods.

► Encourage joint ventures in which Americans supply the capital goods, and business expertise, and Africans the local market knowledge and contacts.

► Set up a new U.S. Regional Trade Development Center for West Africa (to be opened in Lagos, Nigeria) as a meeting place for African and American businessmen and a focal point for a vigorous U.S. trade promotion program in West Africa.

► Provide improved and more flexible financing to African buyers, including arrangements by the U.S. Eximbank with African lending institutions.

► Persuade more U.S. firms to set up sales offices in African cities.

What are the stakes? The following example was put before the group: by 1973, the import needs of just one developing nation, Nigeria, should equal the 1970 import bill ($3.6 billion) for South Africa, which is regarded as the continent's only developed economy.

What are the needs? Africans need U.S. equipment, technology and managerial skills. U.S. firms that identify with African needs—especially the need for more African participation—can develop lucrative markets.

The meeting of American commercial and economic officers stationed in Africa was held in Abidjan, Ivory Coast, Dec. 6-8. Robert P. Beshar, Deputy Assistant Secretary of Commerce, was chairman of the conference, which was attended by representatives of the Departments of Commerce and State, the Agency for International Development, the Export-Import Bank, the Overseas Private Investment Corporation, the Small Business Administration and 14 U.S. Foreign Service posts in Africa.

Discussion focused on the importance of increased American exports to President Nixon's New Economic Policy—both to create new employment opportunities in the United States and to reverse the unfavorable U.S. trade balance.

"The American people have an enormous appetite for imports. Last year we imported nearly $40 billion worth of goods. The trend is clearly towards more imports. The only way we can afford more imports is to increase our exports. How to do this in the case of Africa was the subject of our meeting," said chairman Beshar.

U.S. presence essential

In identifying major opportunities and problems facing U.S. business in Africa over the next five years, conference participants felt that realignments of international monetary parities should make U.S. products more competitive in Africa.

However, this unique opportunity will be of little help unless something is done to expand the

U.S. BUSINESS IN AFRICA—*Pfizer livestock feed being packaged at company's Nigerian mill. U.S. firms that pinpoint African needs can develop markets.*

U.S. business presence in Africa—not just the big international companies, but across the board. Effective on-the-spot local representation is needed if American exporters are to loosen former colonial powers' dominance of African markets and to counter widening business inroads by other European traders and the Japanese. The best contribution we could make to African economies might be to export a bit of American consumerism and all the distributing and marketing techniques that involves.

The need to provide adequate credit terms and flexible financing was discussed as fundamental in securing business in most African countries.

Representatives of the Export-Import Bank and the Overseas Private Investment Corporation outlined programs of their agencies which are particularly appropriate for strengthening U.S. business in Africa. Among these are Eximbank's "cooperative financing facility" (in which Eximbank works with non-U.S. financial institutions to jointly finance exports of U.S. goods and services), and OPIC's loan and equity guaranty, direct loan and political risk insurance programs.

Role important

Summing up the results of the Conference, chairman Beshar declared: "This meeting in Africa focused on the policies, techniques and personnel needed to increase U.S. trade and investment ties with Africa, because in Africa there is a special relationship between the export of goods, the export of services and the export of capital. The U.S. Government has an important role in spotting business opportunities, checking them out, getting the information to the companies with interest and then helping to expedite the transactions themselves."

Tool Builders' Mission Sees Soviets As Good Customers

The "resounding success" claimed for a fall business mission to the Soviet Union sponsored by the National Machine Tool Builders' Association echoes an earlier verdict expressed on the first Soviet NMTBA mission, held last summer.

The two industry-organized Government-approved trade missions jointly look toward a 12-month volume of business in the multi-million-dollar range, according to James A. Gray, NMTBA executive vice president and leader of the group.

The second trade mission met the high standards set by the first in every way, said Gray. The members talked with users in several foreign trade organizations such as Stankoimport and Avtopromimport; with officials in the Ministries of Foreign Trade, Machine Tool Building Industry, and Automobile Industry; the State Committee for Science and Technology, and various other agencies.

Some of the members were given a tour through the Experimental Scientific and Research Institute of Machine Tools. The group also visited the Ordzhonikidze machine tool plant.

Many of the men returned to the United States with firm requests for quotations on specific machines. In addition, Director Gray brought home other requests for machine tool quotations for types of equipment not manufactured by companies represented on the mission.

During a meeting at the Ministry of Foreign Trade, Gray reported, Vice Minister M.D. Komarov pointed out that trade has been sporadic between the United States and Russia for many years. He said that the Soviet Union presently deals with more than 100 countries and has long-term trade agreements with most Western countries. These agreements determine the general conditions for mutual trade and in some instances list the goods that may be exchanged. At present, there is no trade agreement between the United States and the USSR.

Komarov also pointed out that in 1971 the Soviets had started their ninth five-year plan. Proposed targets, adopted at the Party Congress meeting in March, included automobile factories, rebuilding of some existing plants, and establishment of plants for agricultural equipment and consumer goods.

Patent system discussed

At the State Committee for Science and Technology, Deputy Chairman E.M. Gvishiani explained that basic research is a function of the Russian Academy of Science but applied research is concentrated in industry. He also discussed the Soviet patent system.

Deputy Minister N.I. Strokin conducted a session at the Ministry of Automobile Industry. Gray said Strokin discussed the Kama River (automotive) project briefly and introduced some of the top officials of the project. "He indicated an interest on the part of the Soviets in obtaining American equipment for that plant, but warned that American prices were high and that licensing and credits were still a problem. He said that, if the USSR was unable to obtain equipment abroad on satisfactory terms, the Soviet Union would manufacture its own," Gray observed.

USSR officials told the mission that they plan to send a large delegation to visit the 1972 machine tool show in Chicago.

Plans are now proceeding for an NMTBA mission to Poland in February 1972, Gray reported.

Washington's

Official Trade Briefs

This article is another in a series of monthly reports outlining actions by domestic, foreign, or international agencies affecting world trade, as compiled by the Legislation and Tariff Analysis Division of the Bureau of International Commerce's Office of International Trade Policy, and by the BIC Office of International Investment.

THE PRESIDENT

Import Surcharge Terminated: Following the multilateral agreement reached among the Group of Ten major industrial nations, President Nixon on Dec. 20 issued a proclamation terminating the import surcharge (see *Commerce Today*, Dec. 27). Also terminated were the "Buy American" provisions of the investment tax credit provided for in section 107 of the Revenue Act. The "Buy American" provisions state that investment tax credits are not applicable to any property completed abroad even though substantially all its value is represented by components manufactured in the United States or to any property completed in the United States if less than 50 percent of the cost is attributable to value added in the United States.

Bills Signed: On Dec. 10, the President signed into law H.R. 10947, the Revenue Act of 1971 (P.L. 92-126). In addition to the DISC (Domestic International Sales Corporation) provisions (see *Commerce Today*, Dec. 27), the Revenue Act contains two other trade related provisions. Section 107 gives the President discretionary authority to re-impose the "Buy American" features of the investment credit on a country-by-country and product-by-product basis if he determines that a foreign country unjustifiably restricts U.S. commerce or engages in discriminatory acts referred to in section 252(b) of the Trade Expansion Act.

Section 401 equalizes the excise tax treatment of domestic and imported vehicles by making tires and inner tubes which are original equipment on imported vehicles (other than bicycles) subject to the domestic manufacturers excise tax of ten cents a pound. Section 401 also provides that the tax on the tires of imported vehicles does not apply with respect to those foreign vehicles subject to the automobile or truck excise tax.

In addition, the President signed into law on Dec. 22 H.R. 8312, continuing for 2 additional years the duty-free status of certain gifts by Armed Forces members serving in combat zones (P.L. 92-212). On Dec. 23, the President also signed H.R. 3304, prohibiting importation of fishery products from nations not conducting fishery operations in a manner consistent with international fishery conservation programs (P.L. 92-219).

Sec. 337 (unfair import competition) Order: The President recently directed Customs officers to exclude from entry and to prohibit the release from custody of any lightweight luggage of the type manufactured under patent by Atlantic Products Corp. of Trenton, N. J., except under an additional bond equal in amount to the domestic value of the merchandise. The restriction order will remain in effect until the Tariff Commission concludes its full investigation of lightweight luggage imports (see *Commerce Today*, June 14), and the President takes action on the recommendations of the Commissioners.

Oil Import Program: The White House recently announced changes in the oil import program which would increase licensed imports into Districts I through IV (area East of the Rocky Mountains) by approximately 100,000 barrels a day during 1972 over the 1971 level of imports.

CONGRESS

Committee Action: The House Committee on Banking and Currency ordered favorably reported the following bills: S. 748 amended, in lieu of H.R. 5014, to authorize payment and appropriation of the second and third installments of the U.S. contribution to the Fund for Special Operations of the Inter-American Development Bank; S. 749 amended, in lieu of H.R. 5013, to authorize U.S. contributions to the Special Funds of the Asian Development Bank; S. 2010 amended, in lieu of H.R. 8750, to provide for increased participation by the United States in the International Development Association.

The House Committee on Merchant Marine and Fisheries ordered favorably reported H.R. 10420, to protect marine mammals and to establish a Marine Mammal Commission.

In other activity, reports were filed on the following trade-related bills: H.R. 3233, amending the TSUS with regard to the rate of duty on olives packed in certain airtight containers; and H.R. 10379, amending the TSUS to partially exempt from import duties articles exported from the United States composed in part of fabricated U.S. components which are returned after export without having been advanced in value or improved in condition while abroad.

New Legislation: During the first Session of the 92nd Congress, about 375 trade and related bills were introduced. Of these, 120 were import quota bills and 31 were general orderly marketing bills, applicable when imports surpass stated levels of consumption. Legislation not previously reported in this column includes: S. 3007, permitting restrictions on

importation of unshelled filbert nuts; H.R. 12324, amending the Cargo Preference Act of 1954; H.R. 12330, terminating certain activities of U.S. business concerns in S. Africa, S.W. Africa, Rhodesia or any African territory under Portuguese control, and for other purposes; H.R. 11976 suspending duties on fluorspar until the end of Jan. 1, 1974; H.R. 12046, increasing the duty applied for balance of payments purposes to 25 percent ad valorem on products of France until the French Government takes actions to stop the flow of narcotic drugs from France into the United States; H.R. 12063, amending the Food, Drug and Cosmetic Act to require that labels on certain package goods contain the name and place of business of the manufacturer, packer, and distributor; H.R. 12077, to amend the Gun Control Act of 1968; and H.R. 12116, amending the TSUS to prevent the payment of multiple customs duties in the case of horses temporarily exported for breeding purposes.

TARIFF COMMISSION

Escape Clause Termination—Glass: On Dec. 30, the Tariff Commission (Commissioners Young and Leonard not participating) reported to the President its opinion that terminating the first stage of the current modified escape-clause rates of duty on imported window glass would impair the efforts of the domestic industry producing sheet glass to achieve viable operations. The Commission's report was submitted in accordance with section 351 of the Trade Expansion Act of 1962. This section requires the Tariff Commission, at the request of the domestic industry, to advise the President of its judgment as to the probable economic effect of the termination of escape-clause rates of duty on the industry concerned. In the case of window glass, a 1969 escape clause investigation resulted in an evenly divided Tariff Commission decision. In February 1970, the President elected to continue the modified escape-clause rates on window glass effective since Jan. 11, 1967, while terminating escape-clause rates for other types of sheet glass. According to the President's 1970 decision, the escape-clause rates for window glass are to be terminated in three annual stages, the first to take place on Jan. 31, 1972.

Escape Clause Annual Review—Wilton and Velvet Carpets: The Tariff Commission recently reported to the President on developments in the trade in Wilton and velvet carpets and rugs. The Commission's report was submitted in accordance with section 351 of the Trade Expansion Act of 1962. Section 351 states in part that as long as import restrictions are in effect for a particular product, the Tariff Commission must review developments with respect to the industry concerned and make annual reports to the President concerning such developments. In the case of Wilton and velvet carpets, the Commission reported that U.S. output has declined by 23 percent over last year, while imports for the first 9 months of 1971 were nearly double those of the corresponding figure in 1970.

At the close of 1969, the President extended the escape-clause rate (40 percent ad valorem) on Wilton and velvets, other than imitation oriental types, to the close of Dec. 31, 1972, but permitted the escape-clause rate of duty on imitation oriental types of carpeting to revert to 21 percent ad valorem (which was the trade agreement rate of duty).

Adjustment Assistance—Workers: The Tariff Commission recently concluded three investigations on behalf of worker groups. In the investigations of the Shoe Products Division of the Goodyear Tire and Rubber Co. (soles and heels) and Grenet Footwear, Inc. (women's footwear), the Commissioners found that the criteria establishing eligibility for adjustment assistance were not met. In the third investigation, stainless steel flatware workers at the Utica Cutlery Co. were found eligible for trade adjustment assistance.

In another action, the Commission terminated its investigation on behalf of the workers of the Newark, N.J., plant of General Instrument Corp. In terminating the investigation, the Commissioners noted that the basis on which the investigation had been instituted was incorrect in terms of the identification of the product produced by the plant in question.

The Commission also opened four new investigations into the effect of imports on workers at the following plants: Owensville Shoe Mfg. Co., Owensville, Mo. (leather footwear); Brown Shoe Co., Vincennes, Ind. (cement-processed footwear); Morgantown Glassware Guild Inc., Morgantown, W. Va. (glassware under TSUS items 546.52-.59); Service Heel Co., Lawrence, Mass. (heels for women's footwear); and Bates Manufacturing Co., Inc., Lewiston, Me. (broadwoven fabrics of cotton and manmade fibers).

Dumping Cases: The Tariff Commission recently notified the Secretary of the Treasury that imports of bicycles from West Germany and tubeless tire valves from Canada are not causing injury to the domestic industries. These actions follow earlier determinations by Treasury of sales at less-than-fair value. As a result of the Commission's latest findings, imports of the products in question will not be subject to special dumping duties.

Section 337 (Unfair Import Competition) Cases: On Dec. 14, the Tariff Commission submitted to the President its final report in an investigation into a complaint alleging a combination and conspiracy to boycott Albert Levine Associates of Jamaica, N.Y., from importing and selling certain Italian crawler tractor parts. The Commission found violation of Sec-

tion 337, but did not recommend the issuance of an exclusion order (see *Commerce Today*, Sept. 6).

The Commission also released a report on Dec. 21 of its full investigation into a complaint filed by Ben Walters, Ben Walters, Inc., and Kage Co., which alleged patent infringement involving imported decorative plaques comprised of plastic sheets having an openwork structure. The Commission found (3-2) unfair methods of competition and unfair acts in the importation and sale of such articles and recommended that the President issue a permanent exclusion order against importation of plastic sheets manufactured by means of the patented process (see *Commerce Today*, June 14). Under law, a rehearing before the Commission may be requested, and, in addition, the importers concerned may appeal the Commission's findings within 60 days to the Court of Customs and Patent Appeals. If there is no rehearing or appeal, the Commission will transmit its findings and recommendation to the President.

Announcing receipt of a complaint filed by Frederick Manufacturing Co. of Madison, Wis., the Commission opened an investigation of alleged unfair methods and unfair acts in the importation and sale of combination fish scalers, hook removers, and rules. A preliminary inquiry into the complaint, which alleges patent infringement by at least one importer, has been instituted to determine whether a full investigation is warranted and whether a temporary exclusion order should be recommended to the President pending the outcome of the investigation. Information pertinent to the investigation may be submitted to the Commission not later than Jan. 21.

A second unfair practices investigation was announced by the Commission with its initiation of a preliminary inquiry into a complaint filed by Venus Esterbrook Corp. of New York, N.Y., alleging patent infringement by three named importers of writing instruments incorporating a porous writing nib. Deadline for submission of pertinent information is Jan. 17.

OTHER AGENCIES

Treasury—Dumping Cases: The Treasury Department recently announced a dumping finding in its investigation of clear sheet glass imports from France, Italy, and West Germany. Under provisions of the Antidumping Act of 1921, the finding of dumping is a statutory requirement which precedes application of antidumping duties and follows findings of sales at less-than-fair value and injury to a U.S. industry.

Treasury also announced an intent to discontinue its antidumping investigation of BHT (an anti-oxidant chemical) from Japan. The announcement followed formal assurances from the exporters that they will make no future sales or shipments of BHT, or other antioxidants having BHT as their main component, to the United States.

In two other actions, Treasury announced the withholding of appraisement on railway track maintenance equipment from Austria and on cadmium from Japan. Under the Antidumping Act, the Secretary of the Treasury is required to withhold appraisement whenever he has reasonable cause to believe or suspect that sales at less-than-fair value may be taking place.

Eximbank—Short-Term Discount Program: The Export-Import Bank has initiated a Short-Term Discount Program to support export credit with repayment terms of less than one year.

The new program, begun Jan. 1, is designed to encourage commercial banks to make short-term export loans by assuring banks that these loans would be readily convertible to cash in case of need.

Under the program, Eximbank will issue "advance commitments" for discount loans based on particular export transactions financed by a commercial bank. Eximbank will then disburse the Loan to the commercial bank at any time it requests over the term of the underlying export debt, up to the remaining principal amount.

If the discount loan is disbursed within 90 days following the commercial bank's own disbursement, the discount rate will range between one and two percent below the interest yield to the commercial bank, depending on the amount and maturity. Thereafter, the discount rate will be this rate or the cost of money to Eximbank in the private market for comparable maturities, whichever is greater.

As with all Eximbank programs, the new Short-Term Discount Program is designed to supplement and encourage and not compete with private sources of financing. Eximbank expects exporters and banks to utilize their customary sources of funding for export sales and to turn to the new facility only if these other sources should be unavailable or unsatisfactory.

The new short-term program supplements Eximbank's existing Medium-Term Discount Program, which refinances commercial bank export loans with maturities between one and five years. Together, the two programs now cover the entire range of export credit normally extended by banks and exporters.

Commerce—Adjustment Assistance: The Secretary of Commerce recently approved a trade adjustment assistance proposal submitted by ASG Industries, Inc., of Kingsport, Tenn. Under the proposal, a government loan of up to $4 million will be authorized to assist the company in adjusting to competition from increased imports.

Following an earlier escape-clause investigation of the sheet glass industry in which the Tariff Commission made an evenly divided report to the President, the

President used his tie breaking authority to side with those Commissioners voting in the affirmative, and authorized ASG, as well as other injured firms, to apply for adjustment assistance. The company was then certified by Commerce as eligible for adjustment assistance on July 21, 1970.

Commerce also approved adjustment assistance proposals submitted by the Louis Shoe Co., Amesbury, Mass. (women's dress shoes) and H.H. Scott, Inc., Maynard, Mass. (hi-fi electronic equipment). In the case of Louis Shoe, a government loan of up to $672,000, and technical assistance, in an amount yet to be determined, have been authorized. Adjustment assistance for H. H. Scott consists of tax funds to be used for operating capital. Both cases were referred to Commerce following Presidential action on evenly divided Tariff Commission reports. This brings to six the number of adjustment assistance proposals approved by Commerce under provisions of the Trade Expansion Act of 1962.

International Trade Briefs

Kennedy Round Reductions: On Jan. 1, 1972, the United States implemented the fifth and final tariff reduction negotiated under the auspices of the General Agreement on Tariffs and Trade (GATT). The first of the five stages of tariff reductions went into effect on Jan. 1, 1968. After the final reduction, the average U.S. rate of duty on dutiable imports will be 9 percent. Other GATT member-countries which have not already implemented their fifth stage reductions joined the United States in making their final stage reductions Jan. 1.

Canadian Dumping Action: The Canadian Department of National Revenue has determined that the dumping of wedding gowns from the U.S. is not causing material injury to Canadian producers.

Trade Fairs, Centers

WHERE THE BUYERS ARE—*U.S. exhibitors at overseas trade fairs keep busy answering the queries of interested foreign buyers and prospective agents. This is the Ferrex International booth at Europort '71, where U.S. products sold well.*

Ship Suppliers Sell $19 Million At Europort '71

Forty-two U.S. producers of marine equipment took advantage of the American exhibit at Europort '71, and they expect to make more than $19 million in sales during the coming year as a result. Off-the-floor sales totaled $878,000, with another $18.4 million in purchases expected in the twelve months following the Nov. 13 closing date of the week-long show.

The U.S. exhibit was divided into four product categories: marine instrumentation (electronics), shipboard equipment, shipbuilding equipment, and cargo handling and port equipment.

Twenty-one of the exhibitors were seeking a total of 106 agents or distributors in the Netherlands or elsewhere in Western Europe. By show's close, 21 representatives had been appointed and negotiations were under way with 91 more.

Out of total estimated attendance of 20,000 at the Amsterdam event, about 17,000 visitors toured the U.S. exhibit area.

Two French Trade Fairs Invite U.S. Exhibitors

American firms are invited by the management to exhibit at two upcoming trade fairs in France.

The **Foire de Nantes,** scheduled for April 6-17, is a general interest, regional fair held in an important Atlantic port city of Brittany. A total of 209 exhibitors from 28 countries displayed a wide variety of goods at the 1971 show. For details, contact J. Lepel Cointet, Foires Commerciales de Nantes, Palais de la Bourse, Place du Commerce, 44 Nantes, France.

The **48th Foire International de Marseille,** to be held from Sept. 21-Oct. 2, is hoping to top last year's showing when 66 U.S. exhibitors and 663 firms from other nations outside France displayed goods. Twenty-eight foreign nations participated with official pavilions. Write: Emile Garden, 15 Moore St., New York, N.Y. 10004.

U.S. Exhibitors Sought For Four Overseas Shows

Food processing, air conditioning equipment: Yugoslavia. Rapid economic growth in Yugoslavia is bringing greater opportunities for American producers of a wide variety of products. Chief among these are air-conditioning, commercial refrigeration, food processing, and packaging equipment—all in high demand to meet the needs of Yugoslavia's expanding food exports and burgeoning tourist industry.

To help U.S. suppliers capitalize on this demand, the U.S. Department of Commerce will sponsor an exhibit of food processing and air conditioning equipment at the Zagreb International Spring Fair from April 17-23.

Products to be promoted at the U.S. exhibition at the Zagreb International Spring Fair lie squarely in the path of Yugoslavia's rapid development into a modern, efficient, consumer-oriented economy. Moreover, recent market surveys show that this lucrative market has not been sufficiently exploited by American manufacturers. To support the export sales efforts of U.S. exhibitors, the Commerce Department will conduct a marketing campaign that will put them in touch with important buyers in Yugoslavia. Nearby Eastern European markets will be included as well, to give exhibitors maximum coverage in the entire market area.

For information on how to participate, call Thomas N. Nisbet at 202-967-4161.

Electronics production and test equipment: Scandinavia. Scandinavia's electronics industry reported an estimated $1 billion in sales in 1970. Output is expected to increase rapidly in the seventies, creating a growing market for electronics production and test equipment—now mainly imported.

The U.S. share of this expanding market is large and growing. Market studies in Denmark, Finland, Norway, and Sweden show keen interest in quality equipment with unique technical features. In strong demand are U.S. printed circuit, numerically controlled, and semiconductor production equipment and measuring and test instruments.

The U.S. Trade Center in Stockholm has scheduled an exhibit of American electronics equipment for April 17-22, to help them strengthen their already healthy position in the Scandinavian market.

The Trade Center show will be promoted to a select audience of buyers, distributors, and agents.

For further information, call George Kemp on 202-967-3088, or write BIC-946, U.S. Department of Commerce, Washington, D.C. 20230.

Plastics production: Germany. By 1975 plastic production in the Federal Republic of Germany is expected to reach about 6.6 to 8.8 million tons. This amounts to an annual increase in output of 5 to 10 percent in the next few years. Dramatic growth in plastic use is occurring in the building industry, in packaging, in the automobile industry and in plastic furniture.

The U.S. Trade Center at Frankfurt has scheduled a May 15-19 show, AUTOPLAST '72, to help American suppliers cash in on this growing market. The show will feature controls, instrumentation, automated machines and systems for the plastics production industry. Newly developed machines, certain raw materials and specialty products in demand in Germany will also be included.

The U.S. Department of Commerce exhibit at the Kunststoffe show last September in Duesseldorf revealed particular demand for U.S. controls, instruments, automated machines and systems, and special machines and materials.

For further information and to reserve exhibit space, contact A. J. Beiring, BIC-946, U.S. Department of Commerce, Washington, D.C. 20230, phone 202-967-3713.

Apparel manufacturing equipment: France. Spurred by the trend of large manufacturers and big-name couturiers to the marketing of mass-produced ready-to-wear clothing, sales by the French apparel industry have increased spectacularly. This has raised demand for the latest U.S. apparel manufacturing equipment.

The U.S. Trade Center in Paris will hold a June 12-16 exhibit of American equipment, featuring machinery having the greatest opportunity for sale in France, including all cloth operations as well as advanced sewing machine accessories, belt and tab turners, permanent press equipment, and laminating and automatic pressing equipment.

Sales of ladies ready-to-wear clothing reportedly have increased from $200 million to $500 million over the past decade. According to industry sources, ladies ready-to-wear alone has 40 deluxe houses (maisons de haute couture).

The Trade Center exhibition will feature the latest in equipment and attachments that would enable French apparel manufacturers to reduce costs and improve production and profits. Market research indicates there are about 3,500 ready-to-wear manufacturers in France. These manufacturers range in size from extremely large to small, providing a ready market for highly sophisticated and computerized equipment as well as actual garment-making machines. French apparel manufacturers spend approximately $20 million annually for new equipment.

For additional information, call Don Johnson at 202-967-2795.

Peru Rationing Exchange; Greece, Spain Take Actions

Peru: Recently issued Decree-Law 19028 establishes a system for rationing foreign exchange to private entities in Peru. Under the law, private firms are to receive foreign exchange allowances based on the average monthly use of foreign exchange by each firm by product line imported during the period Jan. 1970-June 1971. The allowances are to be applied to imports during the period from Nov. 13, 1971 through April 30, 1972. They will be incorporated into the permanent 1972 allowances in a manner not yet specified.

Early indications are that the law is being applied in order to husband foreign exchange in accordance with national development priorities.

The Law requires importers to obtain a nontransferable card prior to opening letters of credit for imports at their banks. The card is issued by the Foreign Transactions Committee comprising representatives from the Ministry of Finance, Ministry of Industry, National Planning Institute, Central Reserve Bank and Bank of the Nation.

For further details, contact Trade Regulations Section, American Republics Division, BIC, Department of Commerce, Washington, D.C. 20230, (202-967-4651).

Greece: The Government recently authorized the suspension of import duties for the period of Jan. 1, 1972 through Dec. 31, 1974, on imports of calves dutiable under tariff paragraph 01.02A 2a of the Greek Tariff Schedule. This suspension will apply to up to 50,000 head annually as long as the calves involved are imported to be fattened to a weight of 400 kilograms for male calves and 300 kilograms for heifers. The decree provides that the Minister of National Economy may suspend the duty free importation of calves for specified periods of time, may determine the number of animals to be imported on a quarterly or other basis, and may reduce the number of calves to be imported. Calves dutiable under tariff paragraph 01.02A 2a already in the Free Zone areas of Greek ports on Dec. 1, 1971, but not yet cleared through customs are not entitled to the tariff treatment provided by L.D. 1019.

Spain: In order to stimulate private investment, the Spanish Government by the terms of Decree Law 18/1971, effective Dec. 2, has established a tax credit against corporate income taxes equal to 7 percent of new investment. Eligible for the credit are outlays for industrial and agricultural machinery, mines and quarries, industrial buildings, and ground transportation equipment. Imported equipment is eligible provided the same type item is not produced in Spain. In order to qualify, equipment must be firmly contracted for before June 30 and must be delivered before Jan. 1, 1974.

Lloyd's To Reinsure Part Of Liabilities Of OPIC

For the first time in its history Lloyd's of London will reinsure the policies of a United States Government entity. The Overseas Private Investment Corporation has entered into an agreement with Lloyd's to reinsure $250 million of OPIC's $2.4 billion current expropriation insurance written on U.S. private investments in the developing nations. According to OPIC President Bradford Mills the agreement, in effect, reduces OPIC's outstanding expropriation insurance liability by approximately 10 percent during the next year.

The reinsurance coverage is effective in 73 countries and areas where OPIC has outstanding current expropriation coverage, except for Chile, and will be available in other countries where OPIC may operate in the future.

The Lloyd's reinsurance liability is limited to 50 percent of the current expropriation coverage in countries where the total is less than $14 million.

OPIC is under a Congressional mandate to conduct its operations on sound risk management principles and to move them towards a self-sustaining basis. The agreement with Lloyd's is another step in this direction and towards transferring the political risk insurance program to the private sector.

Drainage Mission Will Visit Egypt

A U.S. Specialized Trade Mission in the field of drainage equipment is scheduled to visit Egypt from Feb. 21 to 29.

The World Bank has recently made available a $26 million dollar loan to the Egyptian Government for the Nile Delta Drainage Project. This mission will give American manufacturers the opportunity to promote sales of U.S. equipment in this field. Included in the product category are transmission lines, flushing machines, trucks, tractors and trailers, draglines, mobile cranes, general purpose vehicles, tile-laying machines, and equipment for pumping stations.

The Commerce Department will pay all operating expenses and provide for both an advance officer to precede the mission and a mission director to accompany it. Each member is required to pay his own transportation and living expenses, and share with the other members the cost of official receptions.

Interested firms may contact Herbert Sacks on 202-967-3184 or write Trade Missions Division, BIC-940, U.S. Department of Commerce, Washington, D. C. 20230.

Worldwide Business Outlook

Italy Set For Better Year; Trade Prospects Improve

Italy's economy, after a disquieting year, should improve moderately to a 4 percent growth rate in 1972 if there is relative stability on the labor front. A resurgence of private confidence this year may supplement considerable Government investment, which in turn could lead to an upswing in trade prospects.

Harry W. Heikenen, Commercial Counselor at the U.S. Embassy in Rome, estimates that total imports from the United States in 1971 equalled the 1970 level of $1.5 billion. Thus, the U.S. share, while diminishing slightly, remained at about 10 percent of the Italian market. At the same time, the market share of Common Market partners increased slightly, to 42 percent.

Trade repercussions

The impending value added tax (TVA), scheduled to replace the present turnover tax (IGE) on June 30 of this year, is already having repercussions on trade. For example, Italians under the existing system have been subjected to a turnover tax on capital equipment purchases, whereas under the new TVA there will be no such tax. Businessmen have therefore held off purchasing capital equipment. To get around this, the Government has lifted the existing turnover tax on capital goods in anticipation of TVA, thus providing an immediate stimulant to purchases.

While bookkeeping operations under TVA will be highly complicated, businessmen feel that its main effect will be to raise prices somewhat; however, doing away with multiple applications of the turnover tax should rationalize the present application of Italian levies on imports.

Significant trade opportunities will develop from recent enactment of the Mezzogiorno Development Bill, which provides for new investment of $11.2 billion in the South over the next five years, with $2.2 billion programmed for 1972. A large portion of these government funds is already earmarked for projects to be undertaken by State-participation holding companies (IRI, ENI, EFIM, etc.). However, these entities can buy from any source, and even government tenders result in a 20 percent share of purchases from foreign sources, so prospects for business are good.

Major investments

The following industries and sectors are slated for major new investments under this program: chemicals and petrochemicals, iron and steel, aluminum and alloys, textile fibers, electronics and auto parts. In addition, development of infrastructure, as well as facilities for tourism, will involve needs for construction equipment and selected building materials.

Another measure recently enacted is the Housing Bill, which will mobilize $4 billion to be spent through 1973 to build 250,000 housing units. While most of the building materials involved will come from local sources, this infusion of funds should stimulate the ailing construction industry, which accounts for 25 percent of Italian production, with resultant benefits to the economy and trade.

As for private investment, Confindustria sources agree that this area has been "soft," and that major increases in industrial investment in 1972 will probably be by the public sector. With government input, total industrial investment, some 3,941 billion lire ($6.4 billion) in 1971, is projected to increase by about 10 percent in 1972.

Raw material and commodity trade notwithstanding, the mechanical sector (machinery, industrial, electronic and transportation equipment) accounts by far for the largest proportion of U.S. exports to Italy (36 percent) and it is here that investments will generate widespread sales opportunities. This area is further stimulated by the drive to improve efficiency and productivity, which continues despite the temporary stagnation.

Strong demand

A good example of this is the business machine data processing field, which, as one journal put it, is "one of the healthiest going." The forecasts are a market of $160 million by the end of 1972, and annual growth rates of 20-30 percent for the next four to five years. A recent successful promotion of American business automation equipment at the U.S. Trade Center, Milan, confirmed very strong demand not only for data communications equipment but for electronic calculators and business systems as well. As one exhibitor said: "When there is a crisis, there is need to organize." This is precisely what banks, insurance companies and others are doing as they abandon traditional office methods.

On the other hand, another sector of the electronics industry is not doing so well. The market for electronic components—a growth industry until 1970—has dropped off due to saturation of the consumer market. Said one of the largest importers of U.S. electronic production equipment: "My sales are 20 percent down and I don't see any change in 1972." The domestic industry is hoping the Government will decide which system to adopt for color television, French or German, so the present glut in this area is removed as consumers switch to color TV.

The telecommunications indus-

try is undergoing rapid expansion because of increased demands of the domestic telephone system, but equipment is largely supplied from Italy-based firms. While an estimated $38 million worth of components are supplied by American companies annually, 90 percent of this comes from their European plants.

Top growth areas

Chemicals and plastics provide one of the leading potential growth areas for trade in the seventies. With the National Chemical Plan predicting annual growth rates of 11-12 percent through 1980, despite the fact that production in 1971 was slightly down, this sector is targeted for a high rate of future investment by both Government and private industry.

Consumption of chemicals has leveled off, but ENI, the National Hydrocarbon Agency, is highly optimistic about future growth. Imports of chemical products from the United States increased 25 percent to $170 million in 1970 and are holding steady. Pace setters for growth are chemicals such as polymers and monomers, and specialty products (e.g. pharmaceutical raw materials and pesticides).

Recent research indicates an excellent outlook for plastics as well. As a European market, Italy is second only to Germany. Imports in 1970 came to $226 million with the United States supplying 7 percent. Plastics processing firms as well as machinery manufacturers are hard put to keep up with demand, and there are good prospects for sales from the United States of advanced machinery of many types (e.g. metering, mixing, spraying and foam moulding equipment) for instrumentation and automatic controls, and for selected plastic materials.

New field

A new field exciting interest is pollution control. The Italian Government has given signs of "doing something about it" with the enforcement of some old laws relating to water pollution, and is beginning to generate legal proceedings against violators. ENI projects investments of $844.6 million during 1970-1980 on equipment for civil/municipal water treatment and an additional $1.86 billion from 1970-75 for industrial water treatment. Although these goals will probably not be realized, there should be good sales prospects for environmental monitoring systems and water purification equipment, as well as pollution control systems.

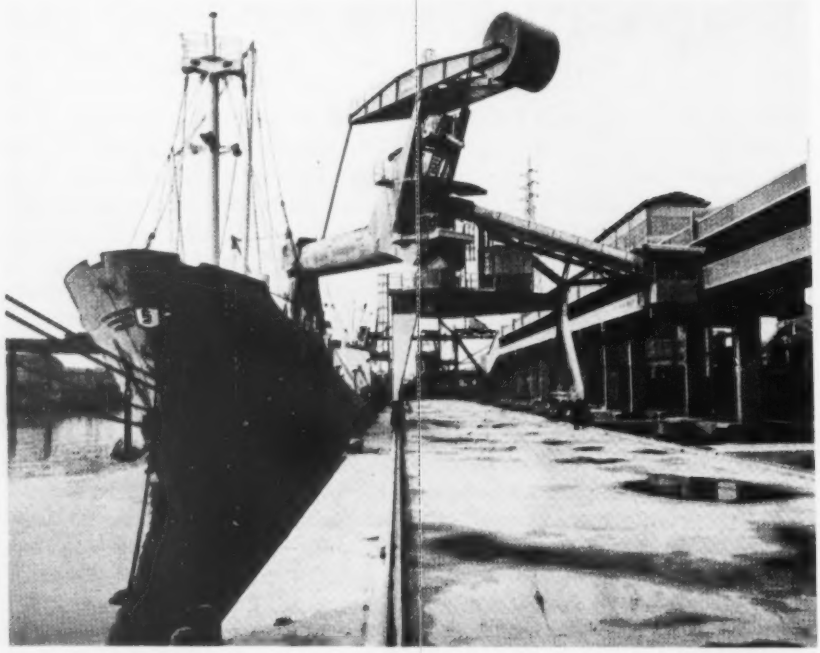
Big opportunities

Some "big ticket" opportunities may lie in nuclear power generation and related instrumentation. Italy has three plants now and a fourth under construction, but bids for a fifth are being withheld due to financial problems. Nevertheless, ENEL, the State Power Agency, optimistically talks of building one plant per year for the next five years, so this area is worth keeping an eye on. The present plant under construction has 15-20 percent American participation.

Another big ticket item—aircraft and parts—is of specialized interest and continues to be dominated by U.S. suppliers. Sales should hold up well, with Alitalia having four DC-10's on order. Long-term prospects look good provided transatlantic traffic resumes growth.

Boeing and Aeritalia have received approval from the Italian Government of their agreement to design and develop a STOL aircraft, which should further bolster long-term trade.

Although imports of steel have dropped drastically from the abnormally high level of 1970, when foreign suppliers filled the gap caused by strikes, the longer-term outlook is for strong growth in the steel and metallurgical fields. This sector is programmed for a high rate of investment during 1972-75. Some questions are being raised about a fifth metallurgical complex planned for Calabria, but work is already under way to raise capacity at the Taranto steel complex, from its present 4.5, to 10 million tons per year output by 1975.



ITALY'S UPTURN WILL BOOST TRADE—*The economic upturn expected this year should spur exports and imports. Here, fertilizer is loaded at Venice for export.*

Chile Devalues Escudo; U.S. Trade, Investment Dip

The Chilean Government devalued the escudo Dec. 10 for most trade purposes and resumed the same day foreign exchange payments following their suspension Dec. 6. The devaluation came as a result of severe balance of payments pressures and sharp declines in international reserves.

Four exchange rates

Four rates of exchange are now in effect: 12.21 escudos for one U.S. dollar for food and petroleum products (the rate for all import payments prior to the suspension); 19 escudos for machinery, spare parts and industrial components; 25 escudos for luxury goods; and 15.8 escudos per U.S. dollar for all other goods.

Concurrently, the International Monetary Fund made available a loan of $39.5 million in foreign currencies to compensate for a shortfall in Chile's foreign exchange earnings from exports.

In the first 11 months of 1971, U.S. exports to Chile amounted to $203.2 million, down 26.8 percent from 1970, and U.S. imports at $88.2 million were lower by 37.8 percent.

Stringent import and exchange controls due to balance of payments pressures, and a sharp decline in investment activities were among the principal factors causing lower U.S.-Chilean trade levels in 1971.

The reported general reduction in investment activities coincided with the phaseout of the copper expansion program which had required substantial imports from the United States during previous years. In addition, U.S. sales of agricultural machinery and equipment were lower.

U.S. exports of agricultural products, particularly wheat, also declined, although total Chilean imports of these products soared by 54.6 percent in terms of eight-month import registrations.

Further, U.S. exports were affected by Chile's balance of payments difficulties which resulted in the imposition of increasingly severe import and exchange controls.

Meanwhile, imports by the private sector continue to be subject to a 10,000 percent prior import deposit requirement, which is returned upon customs clearance. Significantly, government agencies are exempted from the deposit requirement, as are importers who buy from countries which belong to the Latin American Free Trade Association. The exemption applies to an estimated 60 percent of Chile's imports.

In addition, the Chilean Central Bank continues to require that importers delay payments in local currency for at least 50 days and not more than 60 days after the date of the bill of lading. Since foreign exchange is not made available for remittances until about 60 days later, foreign suppliers and banks may wait four months before receiving payments.

Chile's decision to switch the bulk of copper sales from the United States to third markets was the main reason for the drop in U.S. imports from Chile. Thus, U.S. copper imports from Chile, which had averaged about 8,000 tons a month in 1970, were reduced to 3,000 tons in 1971.

Copper prices declined well below 1970 averages, and contributed importantly to lower Chilean export levels, while imports rose substantially during the first eight months. Furthermore, a decline in international short-term credit availabilities as well as a virtual stoppage in foreign investment and a heavy foreign debt burden, requiring, according to the Chilean Government, payments of $300 million in 1971 and about $400 million in each of 1972 and 1973, combined to exert severe pressures on the balance of payments. Net international reserves decreased to a little more than the equivalent of one month's imports, falling from $343 million at the end of 1970 to $120 million on Sept. 30.

In view of these circumstances, the President of Chile announced in November that Chile would seek to renegotiate the structure of its foreign debt of about $3.8 billion with international creditors.

Economic gains

The Chilean economy made gains in certain areas in 1971, although some of this was at the cost of substantially lower foreign exchange reserves. According to the Chilean Government, industrial production rose 10-12 percent while gross domestic product increased by about 8 percent.

Chile experienced a mini-consumer boom in 1971 when consumers went on a buying spree after the Government implemented expansive monetary, fiscal, and wage policies to redistribute the national income in favor of lower income groups. With increased liquidity, these groups demanded a wide variety of consumer goods.

Since the Government placed tight controls on prices the consumer price index rose by only 15.8 percent through September, compared with 34.1 percent in the same period of 1970. However, the increased liquidity, together with price controls and other factors, caused scarcities in the availability of certain food and other products. This was offset to some extent by heavy imports of foods and beverages; fuels and lubricants; industrial raw materials; and transportation equipment, including auto parts.

Chilean industry operated at near full capacity and, although not increasing capital expendi-

tures, used existing plant and equipment more intensively while at the same time utilizing larger amounts of labor, thus lowering unemployment rates. Further production gains will, however, depend largely on whether investment revives and total domestic expenditures are restrained with a view to improving the balance of payments.

In its first year in office the Government of President Allende implemented policies designed to convert Chile into a Socialist state. Thus it nationalized the major copper, nitrate, and iron ore mines in which U.S. capital had been invested, as well as tne coal mines. The issues raised over compensation to the major copper mining companies have not yet been resolved.

Other actions

The Government also expropriated, requisitioned, and intervened key private firms in textiles, cement, brewing, iron and steel production and fabrication, telephones, foods, grains, and others. Further, it bought control of the commercial banking system, and generally sought control over financial enterprises.

The Government announced that the foreign trade sector would be nationalized, and that this objective would be pursued with vigor in 1972.

According to Government plans, the economy is to consist of three areas—social, mixed, and private. In a bill submitted to the Congress in October, the Government defined these areas.

The social area would consist of firms which have already been placed under state ownership and those which will be converted into state enterprises in the future. It would include all firms which have operations deemed of "preeminent importance to the economic life" of the nation—those supplying articles of basic necessity; those with important roles in international trade and trade agreements; those needed to carry out development plans; and those of vital importance to national defense.

The mixed area would consist of firms which entered into partnerships with the Government. Either party could have a majority ownership in such enterprises, depending upon negotiations.

The private sector would include the vast majority of Chilean firms —some 35,000—whose capital and reserves were 14 million escudos or less as of Dec. 31, 1968 (8.71 escudos equalled $1).

Austria Due To Level Off In 1972, But U.S. Will Be More Competitive

Reports of an early death for Austria's prolonged boom have proved premature.

It speaks well for the stamina of Austria's economic and government policies that the downturn so often predicted has been so slow in coming. Even in the face of clear evidence that Austria's major trading partners (Germany and Italy) are entering a slack period, the local picture looks nowhere near as gloomy as might be expected.

While Austria's pace-setting 1970 GNP growth rate of 7 percent (the highest in Europe) was not matched last year, growth did reach a healthy 5.5-6 percent.

As for 1972, reports Joseph O. Eblan, Commercial Attache at the U.S. Embassy in Vienna, there seems little question that a leveling off is in store. This forecast is shared by a large number of businessmen and financial experts, and some long-range planning and investments are being adjusted accordingly. On the other hand, other businessmen are convinced that the slack conditions in other Western countries will be short-lived. These businessmen are thus basing their investment and expansion decisions on a more optimistic outlook.

TYROL TO BRENNER PASS—*Projects such as the new Tyrolean Turnpike, above, helped prolong Austria's upturn.*

There is one negative feature of the current scene on which Austrians all agree; they are worried about inflation. Over 5 percent increases in the consumer price index in August and September, combined with a series of strong wage-increase demands coming up in 1972, will no doubt aggravate this situation.

The foregoing prognosis presents a new, but not necessarily gloomy, outlook for U.S. exporters. As a marginal supplier at best to the Austrian market, the U.S. gains more than proportionately during times of boom. The opposite would be expected in recessionary phases. On the other hand, there are some special factors which could mitigate the adverse effects of the coming slowdown on the United States.

To begin with, the Government plans to continue its present import liberalization policies as a means of dampening inflation. Also, the 5 percent revaluation of the Austrian

schilling in May 1971, followed by another upward hike of 2 percent since Aug. 15, has given U.S. suppliers an edge over their foreign competitors in many product lines. If the goals of President Nixon's New Economic Policy are achieved, American exporters should reap the benefits of their more competitive prices for some time.

This improved position may further be enhanced by official Austrian Government policies. There is considerable sympathy and understanding for the difficulties experienced by the U.S. Even before August, Finance Minister Androsch called for stepped-up purchases of American capital equipment, together with more investments in the U.S., as a means of repatriating excess dollars.

More recently, Chancellor Kreisky urged all European countries to adopt policies to help the U.S. redress its trade balance. Such action, he said, would not only contribute to renewed world trade and monetary stability, but would show appreciation from Europe for the help extended by Americans through the Marshall Plan.

Planned expenditures

Austria's nationalized industries, which produce 21 percent of total industrial output, plan expenditures of 18 to 20 billion schillings ($800 million) for plants and capital equipment in the next five years. With a little effective salesmanship, there is a good chance that U.S. companies could capture a sizable share of this market—a market U.S. firms supplied almost exclusively in the immediate postwar years.

This prospect is illustrative of a more general situation which U.S. business could capitalize on in the years ahead—the modernization and rationalization bound to be forced on Austrian industry as the country's upcoming arrangement with the European Common Market approaches. Although such an arrangement may not come fully into force for another few years, investment decision-makers will anticipate the new competitive demands on the economy. Thus, America's clear technological lead in some lines can be converted into major sales if properly exploited. Examples of such promising categories are process control equipment, peripheral data processing machinery, some chemical products and pollution control devices.

AUSTRIANS PLAN MORE NEW PROJECTS—*Planned expenditures, like subway construction in Vienna, above, will keep imports up despite a slower economy.*

As a final indication that the winding down of the Austrian boom may not automatically entail losses to U.S. exporters may be cited the strong local interest in certain American products which cannot be obtained in the desired quality or at a good price elsewhere. Soybean products are a good example. Imports of these items went up 29 percent in fiscal 1971, and with the number of livestock rising steadily a continued good showing is expected. The same holds true for certain building materials, laboratory and testing equipment, and many building and construction machines.

Mention should also be made of Vienna's growing importance as a center of East-West trade. The large number of local traders specializing in the Eastern markets is constantly on the lookout for superior American equipment. The Embassy has received specific inquiries for advanced production equipment for the chemical, petrochemical and plastics industries, packaging machinery, electronic components and computers, and related software.

Mixed trade picture

All in all, then, the trade picture for Austria in the months ahead is mixed, with the future depending a lot on developments outside Austria's borders. Nevertheless, trade prospects for the United States are not bad. Austria is a receptive country for both American products and investments, and U.S. companies should move to cash in on the special feature in their favor on the local scene.

U.S. firms should respond directly to Austrian inquirers rather than shunt them to subsidiaries, affiliates or agents in other European countries. Nothing irritates the Austrian businessman more than an indirect reply from Germany, Belgium, or other points when he has written to the United States. He will accept supply from these areas, but wants the answer to his inquiry directly from the U.S. firm to which he has written.

International Business Reports

U.S. Foreign Economic Policy for the 1970s: A New Approach to New Realities. 215 pp. $2.50.

The National Planning Association Advisory Committee on U.S. Foreign Economic Policy for the 1970s proposes a new approach to tariff reductions, the use of interim import restrictions to allow time for adjustment to increased import competition, codes of behavior to harmonize or eliminate nontariff barriers and other restrictive practices, wider margins for exchange rate fluctuations and more frequent changes in parities, reductions in the foreign exchange costs of U.S. defense commitments in Europe and Japan, and an improved program of adjustment assistance to U.S. workers and business firms. The report's 18 specific proposals, states the NPA Committee, were formulated to take account of the new realities in the world economic and political position of the United States.

Write: National Planning Association, 1606 New Hampshire Ave. N.W., Washington, D.C. 20009.

Economic Survey of Canada. 65 pp. Economic Survey of the Netherlands. 75 pp. Published by the Organization for Economic Cooperation and Development. $1 each.

The Canadian economy reached a turning point in the autumn of 1970, according to the OECD, and since then there has been a revival of economic activity with expanding rates of growth in demand, output and employment. Subjects covered are the economic situation, recent developments in economic policy, foreign trade and payments, and economic outlook and policy conclusions. Included are numerous charts and tables.

The upswing in the Dutch economy which started in 1968, reports the OECD, continued through 1970 with no significant loss of strength. The boom weakened in 1971 and some further slowdown seems likely in 1972. The Dutch survey reviews the current situation and recent policy actions, discusses prospects for an early solution to the problem of domestic inflation, and considers the outlook for the economy and the balance of payments for 1972. Annexes include a chronology of recent economic policy measures and export performance in the late sixties.

Write: OECD Publications Center, 1750 Pa. Ave. NW., Washington, D.C., 20006.

Trade and Investment Policies for the Seventies: New Challenges for the Atlantic Area and Japan. 286 pp. $12.50.

Experts from the United States, Europe and Japan consider various aspects of international trade and investment. Subjects include increasing governmental emphasis on industrial policies, the future of Japanese trading companies and Japan's industrial role, and the possibility of a decline in importance of multinational corporations.

Write: Praeger Publishers, 111 Fourth Ave., New York, N.Y., 10003.

Directory of Directors 1971. Published by The Financial Post, Toronto. 743 pp.

The 25th edition of this directory lists some 13,000 Canadian directors and company officials, and shows their positions and directorships. In a separate listing, the boards of directors and executive officers of 2,400 Canadian companies are given. Listings include private as well as public companies.

Write: The Financial Post, 481 University Ave., Toronto 101, Canada.

Calendar For World Traders

Jan. 11—Chicago—Export seminar, Commerce Field Office.

Jan. 12—New York—FCIB Publishers Export Credit Group dinner meeting, Advertising Club, 4 p.m.

Jan. 13 — Chicago — International Trade Club luncheon, LaSalle Hotel.

Jan. 13—New York—Overseas Automotive Club luncheon and meeting, Summit Hotel, noon.

Jan. 18 — Newark — World Trade Assn. of New Jersey, general meeting for members and interested businessmen, Newark College of Engineering, noon.

Jan. 19—Chicago—Midwest Credit Management Assn. meeting, Bismarck Hotel.

Jan. 20—New York—Rotary Club of New York and Society of Foreign Consuls luncheon, Commodore Hotel. Speaker: Harold B. Scott, Asst. Secretary of Commerce for Domestic and International Business.

Jan. 25 — Pittsburgh — Luncheon seminar on East-West trade, William Penn Hotel. Speaker: Harold B. Scott, Asst. Secretary of Commerce for Domestic and International Business.

Jan. 25-26—Ann Arbor—Seminar on promoting your exports through agents and distributors, Institute for International Commerce, Graduate School of Bus. Ad., U. of Michigan.

Feb. 2 — Nashville — International business seminar, Chamber of Commerce conference room.

Feb. 3—Cleveland—World Trade Assn. meeting, American Room of the Mid-Day Club, 11:30 a.m.

Feb. 18-19—Atlanta—Georgia International Trade Assn. workshop, Georgia State U.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows the list of world trade fairs abroad presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and to appoint agents, details on major construction and expansion projects, and notices of U.S. visits by foreign buyers.

Almost 1,000 Trade Fairs Abroad Open To U.S. Companies' Exhibits

U.S. businessmen interested in establishing an export program or expanding an existing one have almost 1,000 worldwide trade fairs at their disposal to help their sales promotion efforts.

To assist American businessmen in the selection of appropriate fairs, *Commerce Today* periodically publishes a schedule of future international fairs. These exhibitions range from the general type, which promote sales in numerous product categories, to the highly specialized fair, designed to attract buyers of specific products.

Events are listed by country, city, name, date and fair management address and are generally open to participation by any U.S. company in the related industry. Each firm may make arrangements for its own exhibit, including rental of space and utilities, transportation of products and setting up and manning of the booth, by communicating with the fair management directly at the listed address.

Firms with limited experience in the field of international trade may find the tentatively scheduled U.S. Department of Commerce exhibitions especially helpful. These fairs are identified by a ★. Fairs in which the Department is participating in cooperation with local agents of U.S. firms located in foreign countries are identified by a ●. For information on Department-sponsored events, address inquiries to the nearest Commerce Field Office (see inside back cover). For fair catalogs and more detailed information on listed events, write: Constance L. White, OITP Trade Fairs Coordinator, Bureau of International Commerce, Washington, D.C. 20230. (202-967-4671).

Some trade fair entries in the schedule below include a DIB (Domestic and International Business) order number—indicating that a report is available on a particular fair. Requests for these reports should be directed to Export Information Services Division, Bureau of International Commerce (BIC-976), U.S. Department of Commerce, Washington, D.C. 20230. The DIB number as well as the name and location of the fair should be included to assure proper identification of the report.

The following information on upcoming fairs is taken from the latest data available to the Department of Commerce. However, the Department cannot assume responsibility for accuracy of dates or for the outcome of any transactions with foreign fair managements.

About half of the list is presented below. The second half will appear in the Jan. 24 issue.

Afghanistan

Kabul

Aug.-Sept. Jeshyn Trade Fair. General. Afghan Ministry of Commerce, Kabul. Annual.

Algeria

Algiers

May 15-25. Int. Packaging Exbn. ONAFEX—Algiers Int. Fair, Exposition Palace, Pins Maritime, Algiers. Triennial.

Sept. 1-17. 9th Algiers Int. Trade Fair. ONAFEX—Algiers Int. Fair, Exposition Palace, Pins Maritime, Algiers. Annual. (DIB 71-11-405)

Angola

Luanda

Oct. 5-20. FILDA—Int. Fair of Luanda. Associacao Industrial de Angola, P.O. Box 1296-C, Luanda. Annual. (DIB 70-12-403)

Nova Lisboa

August-September. FONOL—Official Fair of Nova Lisboa. Associacao Comercial, Agricola e Industrial do Huambo, P.O. Box 40, Nova Lisboa. Annual.

Argentina

Buenos Aires

March. UVEXPO—Int. Exbn. of Viticulture & Complementary Industries. Instituto Nacional de Vitivinicultura, Julio A. Roca 651, 6- Piso, Sector 26, Buenos Aires. Annual.

June 5-July 7. EFICCA—Int. Footwear & Leather Show. Camara de Industriales del Calzado, Av. Rivadavia 4323, Buenos Aires. Annual.

July 8-Aug. 31. ITALIA 2000—Italian Design & Engineering Show. Italian Embassy, Buenos Aires. One-time exhibition.

July-Aug. Int. Industrial & Agricultural Exbn. Sociedad Rural Argentina, Florida 460, Buenos Aires. Biennial.

Sept. 15-Oct. 1. Int. Furniture & Decoration Show. Camara de Empresarios Madereros Argentinos y Afines, Comite Ejecutivo, Maza 578, Buenos Aires. Annual. This will be its first edition.

Nov. 18-Dec. 4. Exbn. of South African Products. Embassy of South Africa, Buenos Aires. One-time exhibition. Tentative.

Mar del Plata

Dec. 71-March 72. Food & Beverage Show. Stands S.A.C.I., Parana 777, 3-Piso, Buenos Aires. (DIB 71-08-454)

Australia

Adelaide

Feb. 19-24. Int. Motor Show. Automotive Exhibitors Assoc. of South Australia, Inc. G.P.O. Box 368-D, Adelaide, S.A. 5001.

April 21-29. Building & Furniture Exposition. Chamber of Manufactures, 12 Pirie St., Adelaide, S.A. 5001.

July. Boat Show. S.A. Boating Industry Association Inc., 65 Flinders St., Adelaide, S.A. 5000.

July 26-30. Caravan & Camping Show. South Australian Chamber of Manufactures Inc., 12 Pirie St., Adelaide, S.A. 5000.

Brisbane

March 9-18. Int. Motor Show. Chambers of Automotive Industries of Queensland, 62-70 Astor Terrace, Brisbane, QLD. 4000.

Claremont

July 18-21. Local Government Week—Exbn. of Tractors, Machinery & Plant. Chamber of Automotive Exhibitors Assoc. of Western Australia, Inc., P.O. Box 132, Claremont, W.A. 6010.

Melbourne

Feb. 14-17. INTERCLEAN—Flooring, Cleaning, Maintenance & Antipollution Exbn. Riddell Exbn. Promotions Pty. Ltd., Victor House, Suite 17, 618 St. Kilda Road, Melbourne, Vic. 3004.

April 9-16. Australian Furniture Fashion Fair. Victorian Guild of Furniture Manufacturers Ltd., 110 Jolimont Road, Melbourne, Vic. 3002.

May 1-4. CLOTHEX—Int. Clothing Trade Textile & Knitwear Machinery Exbn. Riddell Exbn. Promotions Pty. Ltd., Victor House, Suite 17, 618 St. Kilda Road, Melbourne, Vic. 3004.

May 15-18. CLEAN AIR 72—Exbn. Total Concept Exbns. Pty. Ltd., 57 Ethel St., Balgowah, N.S.W. 2093.

May 22-26. HEVAC—Heating, Ventilating, Air Conditioning & Refrigeration Show. General Exbns., Fairs & Conventions (Vic.) Pty. Ltd., 392 St. Kilda Road, Melbourne, Vic. 3004. (DIB 70-11-407)

July 8-16. Boat Show & Sporting Exbn. Riddell Exbn., Victor House, Suite 17, 618 St. Kilda Road, Melbourne, Vic. 3004.

July 24-30. SIDDA—Science in the Development of Australia Exbn. Riddell Exbn. Promotions Pty. Ltd., Victor House, Suite 17, 618 St. Kilda Road, Melbourne, Vic. 3004.

Sept. 21-30. Royal Agricultural Show. Royal Agricultural Society of Victoria, Showgrounds, Epsom Road, Ascot Vale, Vic. 3032.

Oct. 1-7. World Medical Exbn. Total Concept Exbns. Pty. Ltd., 57 Ethel St., Balgowah, N.S.W. 2093.

Oct. 9-13. TECHMA 72—Int. Textile & Clothing Machinery & Accessories Exbn. Industrial and Trade Fairs Pty. Ltd., 77 Pacific Highway, North Sydney, N.S.W. 2060.

Perth

Jan. 20-26. Int. Motor Show. Chamber of Automotive Industries of Western Australia (Inc.), P.O. Box 132, Claremont, W.A. 6010.

Sept. 21-29. Royal Agricultural Show. Royal Agricultural Society of W.A. Inc., 239 Adelaide Terrace, Perth, W.A. 6000.

Oct. 14-18. W.A. Furniture Exbn. Better Furnishing Bureau of W.A. Ltd., 212-220 Adelaide Terrace, Perth, W.A. 6000.

Sydney

March 24-April 4. Royal Easter Show. Royal Agricultural Society of N.S.W., Box 4317, G.P.O., Sydney, N.S.W. 2001.

April 26-30. N.S.W. Guild Furniture Exbn. N.S.W. Guild of Furniture Manufacturers, 1 King St., Newtown, N.S.W. 2042.

May 15-21. Homes, Hobbies & Handcrafts Exbn. Public Relations Manager, Industrial & Trade Fairs Pty. Ltd., 77 Pacific Highway, North Sydney, N.S.W. 2060.

May 15-19. Australian Catering Trade Fair. Industrial & Trade Fairs Pty. Ltd., 77 Pacific Highway, North Sydney, N.S.W. 2060. (DIB 70-11-405)

May 31-June 4. Caravan & Outdoor Living Show. Thomson Exbn. Promotions Pty. Ltd., 47 Chippen St., Chippendale, N.S.W. 2008.

May 31-June 7. Int. Building Exbn. Industrial & Trade Fairs Pty. Ltd., 77 Pacific Highway, North Sydney, N.S.W. 2060.

June 26-30. Int. Chemical Petroleum and Gas Industries Exbn. Industrial & Trade Fairs Pty. Ltd., 77 Pacific Highway, North Sydney, N.S.W. 2060.

July 19-23. 5th Int. Boat Show. Industrial & Trade Fairs Pty. Ltd., 77 Pacific Highway, North Sydney, N.S.W. 2060.

July 21-26. Telegraph Boat Show. Industrial & Trade Fairs Pty. Ltd., 77 Pacific Highway, North Sydney, N.S.W. 2060.

Aug. 7-12. Int. Engineering Exbn. Thomson Exbn. Promotions Pty. Ltd., 47 Chippen St., Chippendale, N.S.W. 2008. (DIB 70-10-402)

Aug. 25-Sept. 2. Motor Show. Chamber of Automotive Industries of N.S.W. C.A.I. House, 33-39 Riley St., Sydney, N.S.W. 2001.

Sept. 5-8. Advertising & Marketing Services & Equipment Exbn. Total Concept Exhibitions Pty. Ltd., 57 Ethel St., Balgowah, N.S.W. 2093.

Sept. 18-22. CEITA—Control, Electronics, Telecommunications, Instruments & Automation Exbn. CETIA, Box 3629, G.P.O., Sydney, N.S.W. 2001.

Austria

Dornbirn

July 29-Aug. 6. 24th Dornbirn Trade Fair. Export und Mustermesse GmbH Realschulstrasse 6, A-6850 Dornbirn. Annual.

Sept. 27-30. INTERBUERO—Specialized Exbn. for Office Organization & Management. Export und Mustermesse GmbH, Realschulstrasse 6, A-6850 Dornbirn. Biennial.

Graz

April 14-15. AVM—Graz 72, Meeting & Exbn.—Audiovisual Media. Oesterreichisches Bauzentrum Graz, Joanneumring 5, A-8010 Graz. Irregular.

April 26-May 5. Baeder und Saunabau—Exbn. of Swimming Pool, Bathroom & Sauna Equipment. Oesterreichisches Bauzentrum Graz, Joanneumring 5, A-8010 Graz. Irregular.

April 29-May 7. Graz Southeast Spring Fair. Grazer Suedost-Messe reg. GmbH, Messeplatz 1, A-8011 Graz, P.O. Box 63. Annual.

Sept. 13-Oct. 6. HEIZUNG—Exbn. of Heating Equipment. Oesterreichisches Bauzentrum Graz, Joanneumring 5, A-8010 Graz. Irregular.

Sept. 30-Oct. 8. Graz Southeast Fall Fair. Grazer Suedost-Messe reg. GmbH, Messeplatz 1, A-8011 Graz, P.O. Box 63. Annual.

Oct. 26-30. EUROPACK—Special Exbn. of the Packaging Industry & Automatic Merchandising. Fachausstellungen GmbH Bergstrasse 22, A-5024 Salzburg, P.O. Box 140. Irregular.

Innsbruck

Sept. 23-Oct. 1. 40th Innsbruck Trade Fair With Special Section For The Tourist Trade. Innsbrucker Messe GmbH, Maria Theresien Strasse 45, A-6020 Innsbruck. Annual.

Klagenfurt

Feb. 2-March 25. DAS DACH—Special Exbn. on Roof Building. Oesterreichisches Bauzentrum Klagenfurt, St. Veiter Strasse 4, A-9020 Klagenfurt. Irregular.

March 18-26. GAST 72—Specialized Fair for the Catering & Tourist Trade. Oesterreichische Holzmesse—Klagenfurter Messe Betriebsges mbH, Valentin-Leitgeb-Strasse 11, A-9021 Klagenfurt, P.O. Box 79. Annual.

Aug. 12-20. 21st Austrian Wood Fair—Klagenfurt Fair. Oesterreichische Holzmesse—Klagenfurter Messe Betriebsges mbH. Valentin-Leitgeb-Strasse 11, A-9021 Klagenfurt, P.O. Box 79. Annual.

Linz

Apr. 20-Jul. 29. Mit Baedern Wohnen—Int. Sanitary (Bathroom) Show. Oesterreichisches Bauzentrum Linz, Goethestrasse 46, A-4020 Linz. Irregular.

Oct. 13-14. AVM-LINZ 72—Meeting & Exbn. of Audiovisual Media. Oesterreichisches Bauzentrum Linz, Goethestrasse 46, A-4020 Linz. Irregular.

Ried

May 27-June 4. Spring Fair 1972. Stadtgemeinde Ried u. oesterreichische Landwirtschaftsmesse, A-4910 Ried, P.O. Box 61. Biennial.

Salzburg

Feb. 19-21. JIM—Int. Fashions for Young People. Fachausstellungen GmbH, Bergstrasse 22, A-5024 Salzburg, P.O. Box 140. Semiannual.

Feb. 25-27. SOUVENIR—Special Exhibition of Souvenir Items, Art Craft & Advertising Gifts. Fachausstellungen GmbH, Bergstrasse 22, A-5024 Salzburg, P.O. Box 140. Annual.

March 2-6. JASPOWA 72—Second Int. Hunting & Sport Arms Exbn. Arbeitsgemeinschaft fuer Fachausstellungen, Loquaiplatz 13, A-1061 Vienna. Biennial.

April 15-17. TOY INTERNATIONAL—Special Exbn. of Toys. Fachausstellungen GmbH, Bergstrasse 22, A-5024 Salzburg, P.O. Box 140. Annual.

May 27-29. EXPO-SA—Special Exbn. of Watches & Jewelry. Fachausstellungen GmbH, Bergstrasse 22, A-5024 Salzburg, P.O. Box 140. Annual.

Aug. 26-28. JIM—Int. Fashions for Young People. Fauchausstellungen GmbH, Bergstrasse 22, A-5024 Salzburg, P.O. Box 140. Semiannual (DIB 71-04-408)

Nov. 18-22. Alles Fuer Den Gast—Special Exbn. of Hotel & Restaurant Equipment & Supplies. Arbeitsgemeinschaft fuer Fachausstellungen, Rott-Au 20, A-5013 Salzburg, P.O. Box 27. Annual.

Tulln

Apr. 14-16; Apr. 21-23. CAMPA & BOOTE 72—Camping & Boating Exbn. Tullner Blumen-und Gartenbaumesse GmbH, A-3430 Tulln. Annual.

Wels

Feb. 10-13. TEX-BO—Special Exbn. of Interior Decoration & Flooring. Fachausstellungen GmbH, Bergstrasse 22, A-5024 Salzburg, P.O. Box 140. Annual. (First exhibition).

May 10-14. THERMOSAN 72—Special Exbn. for Heating, Airconditioning, Sanitary Installations (bathrooms). Fachausstellungen Organisations-GmbH, Josefstaedterstrasse 30, A-1082 Vienna. Annual.

Sept. 1-10. Int. Agricultural Fair Wels 1972. Welser Messe, Messegelaende, A-4601 Wels. Biennial.

Oct. 18-22. Int. Exbn. of Materials Handling & Warehousing Systems. Fachausstellungen Organisations-GmbH, Josefstaedterstrasse 30, A-1082 Vienna. (Frequency not yet determined).

Vienna

Jan. 30-Feb. 3. PROJEKT 2000—Environmental Control. Fachausstellungen GmbH, Bergstrasse 22, A-5024 Salzburg, P.O. Box 140. Triennial.

Feb. 18-27. SYNTHETICA 1972—Constructing & Living With Plastics Materials. Austrian Design Center, Palais Liechtenstein, A-1090 Vienna. One-time exhibit.

Feb. 25-27. 21st OESFA—Austrian Sporting Equipment Exbn. Verband der Sportartikelerzeuger und Sportausruester Oesterreichs, Eschenbachgasse 11, A-1010 Vienna. Annual.

March 15-19. Vienna Int. Spring Fair—Wiener Messe A. G., Messeplatz 1, A-1071 Vienna. Annual. (DIB 71-06-405)

April 7-16. Baeder und Saunabau—Exbn. of Swimming Pool, Bathroom & Sauna Bath Equipment. Oesterreichisches Bauzentrum, Palais Liechtenstein, A-1090 Vienna. Irregular.

April 9-12. IFABO 72—Int. Specialized Exbn. for Office Organization. Wiener Messe A. G., Messeplatz 1, A-1071 Vienna. Annual. (DIB 71-05-400)

April 9-12. 36th Vienna Ladies' Garments Week. Fachverband der Bekleidungsindustrie, Schwarzenbergplatz 4, A-1030 Vienna. Semiannual.

April 27-May 20. Int. Furniture Exposition. Oesterreichisches Bauzentrum, Palais Liechtenstein, A-1090 Vienna. Annual.

June 26-July 2. AIDA WIEN 72—Int. Food Exbn. (incl. packaging, processing machinery, refrigeration and institutional kitchen equipment, store equipment, automatic merchandising). Wiener Messe A. G., Messeplatz 1, A-1071 Vienna. Irregular.

Sept. 6-10. Vienna Int. Fall Fair (with collective national exhibits). Wiener Messe A. G., Messeplatz 1, A-1071 Vienna. Annual.

Oct. 8-11. 37th Vienna Ladies' Garment Week. Fachverband der Bekleidungsindustrie, Schwarzenbergplatz 4, A-1030 Vienna. Semiannual.

Oct. 17-22. HI-FI-1972—Sound Equipment Exbn. Oesterreichisches Bauzentrum, Palais Liechtenstein, A-1090 Vienna. Annual.

October. 4th IFAS—Special Exbn. of Doctors & Hospital Equipment & Supplies incl. electronic data processing in medical applications. Arbeitsgemeinschaft fuer Fachausstellungen, Loquaiplatz 13, A-1061 Vienna. Biennial.

Belgium

Brussels

Jan. 8-11. FLORAMA—Equipment for Florists. Mme. A. Keymolen, 287 Ave. Charles Woeste, 1090 Brussels. Annual.

Jan. 9-16. Int. Leather Goods Exbn. CENEM, asbl. 52 Rue du Progres, 1000 Brussels.

Jan. 10-13. HORESCA—Int. Hotel & Restaurant & Cafeteria Equipment Exbn. Mme. Ruyssereldt, 183 Ave. Ed. Benes, 1080 Brussels. Annual.

Jan. 12-23. Int. Automobile, Motorcycle & Cycle Show. Mr. De Bruyn, 22 Rue du Luxembourg, 1040 Brussels. Annual.

Jan. 22-Feb. 6. Int. Furniture, Home Furnishings & Textiles Show. Mr. Pierre Milroud, 179 Ave. du Domaine, 1190 Brussels. Annual.

Feb. 6-13. Int. Agricultural Machinery & Equipment Exbn. UJEXPO, 9 Ave. Louis Bertrand, 1030 Brussels. Annual.

Feb. 12-15. INDROPA—Int. Drugs & Cosmetics Fair. Mme. Ruyssereldt, 183 Ave. E. Benes, 1080 Brussels. Annual.

Feb. 25-March 5. Int. Building & Decorative Arts Fair. 44 Rue Van Eyck, 1050 Brussels. Annual.

Feb. 26-March 5. Int. Garden & Swimming Pool Show. SOGESTOR, 14 Rue Duquesnoy, 1000 Brussels. Annual.

Feb. 26-March 5. Real Estate & Second House Exbn. SOGESTOR, 14 Rue Duquesnoy, 1000 Brussels. Annual.

February-March. European Exbn. for the Bakery, Pastry, Biscuits, Confectionery, Chocolate & Ice Cream Industries. Rue du Progres 52, B-1000, Brussels.

March 10-19. Int. Inventors Exbn. Salon Int. des Inventions. 109 Rue Defacqz, 1050 Brussels. Annual.

March 11-19. Int. Book Fair. Syndicat des Editeurs Belges, 111 Ave. du Parc, 1060 Brussels. Annual.

March 18-26. Int. Heating & Ventilating Fair. Palais du Centenaire, 1020 Brussels.

March 18-26. Int. Holidays Fair. Mr. Liesenberg, 345 Ave. Charles—Quint, 1080 Brussels. Annual.

March 19-26. Toys & Games Trade Fair. Salon Bel-Jouets, Palais du Centenaire, 1020 Brussels.

March 25-30. AQUARAMA—Int. Water Treatment Exbn. EDICOMIN, 206 Ave. du Roi, 1060 Brussels. Annual.

April 16-21. Int. Household Comfort Fair. Foire Internationale de Bruxelles, Palais du Centenaire, 1020 Brussels. Annual.

April-May. EUROPLASTICA—Int. Plastics Exbn. Palais du Centenaire, 1020 Brussels.

April 29-May 14. Brussels Int. Fair. General. Mr. Chantrenne, Palais du Centenaire, 1020 Brussels. Annual.

May 24-28. EUROCLIMA—European Heating & Air Conditioning Fair. Mr. De Vestel, 44 Rue Van Eyck, 1050 Brussels. Biennial.

May 27-31. SIPAB 72—Publicity & Business Promotion. PROMINTEC, 34 Rue du Progres, 1000 Brussels. Annual.

May 27-31. AUVIC 72—Audiovisual and Communications Equipment Fair. PROMINTEC, 34 Rue du Progres, 1000 Brussels. Annual.

May 27-June 4. Int. Industrial Equipment Exbn. Foire Internationale de Bruxelles, Palais de Centenaire, Brussels. Biennial.

Aug. 27-Sept. 4. EUROPAC—Int. Packaging Exbn. Mr. Meyraert, Floraliapaleis, B-9000 Gent. Semiannual.

Sept. 15-18. Food Business—BISCOCHOC. SOGESTOR, 14 Rue Duquesnoy, 100 Brussels. Annual.

Sept. 15-18. Carpets & Floor Coverings Exbn. Mr. Pierre Milroud, 179 Ave. Du Domaine, 1190 Brussels. Annual.

Sept. 16-20. VISUMAT—Store Display Equipment. Mr. Janssens, 60 Rue St. Bernard, 1060 Brussels. Biennial.

Sept. 24-27. VESTIRAMA-TEXTIRAMA—Ready-to-Wear Exbn. CEPCO, 52 Rue du Progres, 1000 Brussels. Annual.

Oct. 4-11. Sanitary & Kitchen Equipment Exbn. Sanitaire & Cuisine, asbl, 14 Ave. de l' Arbre Ballon, 1090 Brussels. Biennial.

Oct. 17-22. Int. Food & Household Appliances Exbn. SIMPA, 29-31 Blvd. du Jardin Botanique, 100 Brussels. Annual.

Oct. 18-22. Int. Hardware Fair. SOGESTOR, 14 Rue Duquesnoy, 1000 Brussels. Annual.

Oct. 29-31. VAC-EXPO—Sports & Camping Equipment Fair. VAC-EXPO, 345 Ave. Charles Quint, 1080 Brussels. Annual.

Nov. 4-12. Int. Caravan Show. COBELA, 363 Bis Chaussee de Waterloo, 1060 Brussels. Annual.

Nov. 10-13. Int. Baby Show. Foire Internationale de Bruxelles, Palais du Centenaire, 1020 Brussels. Biennial.

Nov. 22-26. INDUSELEC—Industrial Electricity Show. SOGESTOR, 14 Rue Duquesnoy, 1000 Brussels. Biennial.

Nov. 23-27. Int. Furniture Show. Foire de l'Industrie du Meuble, 15 Rue de l' Association, 1000 Brussels. Annual.

Dec. 1-10. Int. Racing Cars & Accessories. Brussels Racing Show, 4 Rue du Luxembourg, 1040 Brussels. Annual.

Dec. 2-10. Hobby & Craft Show. SOGESTOR, 14 Rue Duquesnoy, 100 Brussels. Annual.

Dec. 9-17. 5th Woodworking Show. Foire Internationale de Bruxelles, Palais du Centenaire, 1020 Brussels. Biennial.

Charleroi

Feb. 19-March 5. Home & Holidays Exbn. Salon du Batiment et des Vacances, Palais des Expositions, 21 Ave. de l' Europe, B-6000 Charleroi. Annual.

Ghent

Feb. 4-8. TEXTIRAMA—Annual International Textile, Rugs & Clothing Industries Fair. TEXTIRAMA, Floraliapaleis, B-9000 Ghent.

Liege

March 18-26. Leisure & Garden Exbn. Foire Internationale, Ave. Malvoz 6, B-4000 Liege. Annual.

April 29-May 14. Int. Trade Fair. General. Foire Internationale, 6 Ave. Malvoz B-52, B-4000 Liege. Annual.

Bolivia

Santa Cruz

Sept. 19-27. VIII Feria-Exposicion—Farm, Cattle, Commercial, Industrial & Handicraft Show. Casilla 116, Santa Cruz, Bolivia. Annual.

Brazil

Brusque (Santa Catarina)

Jan. 21-Feb. 6. Textile Fair & Industrial Exbn. Associacao Comercial e Indus-

trial de Brusque, Praca Br. Schneeburg 1-Brusque, Santa Catarina. Annual.

Blumenau
(Santa Catarina)

Sept. 1-11. 7th Industrial Exbn. of Santa Catarina. Associacao Comercial e Industrial de Blumenau, Rua 15 de Novembro 600, Blumenau, Santa Catarina. Irregular.

Niteroi
(Rio de Janeiro)

May. Food Market (tentative). Cia. de Turismo do Estado do Rio S.A. Flumitur, Rua Marques de Olinda 15. Annual.

Oct.-Nov. 5th Agro-Industrial Exbn. Cia. de Turismo do Estado do Rio S.A. Flumitur, Rua Marques de Olinda 15. Annual.

Rio de Janeiro
(Guanabara)

April. 28-May 14. 1st Food & Related Industries Fair & Exbn. (tentative). J. L. Froes Arantes, Rua Evaristo da Veiga 47, gr. 409. Annual.

May 5-28. 1st Fashion & Habitation Salon. Brasilia Empreendimentos S.A., Rua Sao Clemente 409. Annual.

June 9-25. 72 STEEL EXPO—Steel, Metallurgy & Kindred Products Exbn. Nilton Paes Publicidade, c/o Brasilia Empreendimentos S.A., Rua Sao Clemente 409.

June 17-25. 1st Fair of Nations & Industry & Commerce (tentative). P. B. Edicoes Publicidade e Promocoes, c/o Brasilia Empreendimentos S.A., Rua Sao Clemente 409. Annual.

July 1-30. 1st Int. Toy Fair (tentative). J. S. A. Publicidade Empreendimentos Ltda., Av. Rio Branco 185-s/1804. Annual.

July 1-30. 3rd Products Fair. Brasilia Empreendimentos Ltda., Rua Sao Clemente 409. Annual.

July. 3rd Furniture & Household Appliances Fair. Sindicato da Industria de Marcenaria do Estado da Guanabara, Rua Ireneu Marinho, 30. Annual.

Aug. 10-12. 9th Beer Festival & 5th Beverage Industry Exbn. Ouros Ed. Promocoes Ltda. Rua do Ouvidor 169. Annual.

September. 150 Years of Brazil. Brasilia Empreendimentos S.A., Rua Sao Clemente 409.

Nov. 10-Dec. 3. 7th Children's Festival. Brasilia Empreendimentos S.A., Rua Sao Clemente 409. Annual.

December. Brazilian Show of Technology & Humanism. GB Engenharia Industria e Comercio Ltda., Rua Mexico 98.

Novo Hamburgo
(Rio Grande do Sul)

June 17-25. 7th Int. Footwear Fair. Diretoria Administrativa da VII Fenac Novo Hamburgo. Annual.

Bulgaria

Plovdiv

Sept. 24-Oct. 3. Plovdiv Int. Trade Fair. 50 Lenin Boulevard, Plovdiv. Annual.

Burma

Rangoon

March. 8th Gem, Jade & Pearl Emporium. Trade Corporation No. 19, 83/85. Annual.

Canada

Calgary

May 16-19. National Petroleum Show. Southex Coliseum Building, Box 1010 Station B, Toronto. Biennial.

Montreal

Jan. 13-23. Int. Automobile Show. 3600 Barclay Ave., Suite 460 Montreal, Quebec. Annual.

Jan. 25-27. Canadian Pulp & Paper Association Technical Products Display. Canadian Pulp and Paper Association, 2300 Sun Life Building, Montreal 110. Annual.

Jan. 30-Feb. 3. Sporting Goods & Cycle Show. 2115 Drummond St., Montreal, 107 P.Q.

February-March. National Boat Show. 67 Yonge St., Toronto 1, Ontario. Annual.

Feb. 13-18. Canadian Toy Fair. 26 Notre Dame Street, West Montreal, Quebec.

March 12-16. Montreal Gift Show. Seccombe House, 443 Mt. Pleasant Rd., Toronto. Semiannual.

March 13-16. National Hotel, Restaurant & Institute Suppliers Exbn. 3637 Metropolitan E. Rm. 801, Montreal. Annual.

March 20-23. Canadian Pulp & Paper Association Show. 2280 Sun Life Building, Montreal 110, Quebec. Annual.

April 4-10. Farm Machinery & Poultry Industry Show. 10819 St. Denis St., Montreal, Quebec. Biennial.

May 30-June 1. Canadian Computer Show. Industrial Trade Shows Canada, 481 University Ave., Toronto 2, Ontario. Annual.

June. Canadian Plant Engineering & Industrial Equipment Show. 481 University Avenue, Toronto 2, Ontario. Annual.

Aug. 6-10. Furniture Mart. 39 Elysee Pl., Bonaventure, Montreal 114, Quebec. Annual.

Sept. 24-26. Canadian Shoe & Leather Fair. 1010 St. Catherine, W-710, Montreal 110, Quebec. Annual.

Oct. 2-5. Canadian National Business Show. 1819 Yonge St., Toronto 7, Ontario. Annual.

Oct. 27-Nov. 5. Int. Agricultural & Food Exposition. 10819 St. Denis St., Montreal, Quebec. Annual.

Nov. 9-10. Electrical & Electronics Engineers Exbn. & Symposium on Communications. P.O. Box 802, Station B, Montreal 2, Quebec. Biennial.

Toronto

Jan. 26-29. Canadian Farm & Industrial Equipment Show. Ontario Retail Farm Equipment Dealers Association, Suite 207, 145 Shepphard Ave. E Willowdale, Ontario. Annual.

January. Canadian Furniture Mart. Southex Box 1010, Station B, Toronto. Annual.

Feb. 4-13. Int. Boat Show. Box 168 Toronto Pom. Center, Toronto 1, Ontario. Annual.

Feb. 7-9. Canadian Hardware Show. 290 Merton St., Toronto 7, Ontario. Annual.

March. Canadian Automotive Service Show. 287 MacPherson Ave., Toronto 7, Ontario. Triennial.

March 13-15. National Heating, Refrigeration & Air Conditioning Show. 6205 Airport Rd. Malton, Toronto 1, Ontario.

March 17-26. Canadian National Sportsmen's Show. Suite 4904, P.O. Box 168, Toronto-Dominion Centre, Toronto 1, Ontario. Annual.

March. Canadian Pool & Patio Shows. 1819 Yonge St., Toronto 7, Ontario.

April 7-15. National Home Show. Toronto Metropolitan Home Bldrs. Assn., 1819 Yonge St., Smedmor Ltd., Toronto 7, Ontario. Annual.

April 10-11. Industrial Accident Prevention Assn. & Safety Show. 74 Victoria St., Toronto 1, Ontario. Annual.

April 18-20. Containerization & Cargo Handling Exbn. Intex 925 Queen St., W. Toronto, Ontario. Biennial.

April 23-26. Food Service & Hospitality Show. 60 Ave. Road, Toronto, Ontario. Annual.

April. National Mechanical Trades Show. Southex Exbn. Park, Box 1010 Sta. B, Toronto, Ontario.

May 8-12. National Industrial Production & Machine Tool Show. Canadian Industrial Management Assn., 481 University Ave., Toronto 2, Ontario. Biennial.

Sept. 10-12. Supermarket Show. Industrial and Trade Shows, 481 University Ave., Toronto 2, Ontario. Biennial.

Sept. 19-21. Canadian Chemical & Process Equipment Exbn., Box 1010 Station B, Southex Toronto 2B, Ontario. Biennial.

Oct. 2-5. Canadian National Business Show. 1819 Yonge St., Toronto 7, Ontario. Annual.

Oct. 17-20. Plastics Show of Canada. Industrial and Trade Shows of Canada, 481 University Ave., Toronto, Ontario. Biennial.

Oct. 26-28. Canadian Educational Showplace. Industrial and Trade Shows of Canada, 481 University Avenue. Annual.

October-November. Andio Electric Hi-Fi Show of Canada. Box 127 Station R, Toronto 17, Ontario. Annual.

Nov. 7-9. Canadian National Packaging Exposition. 45 Charles St. East Toronto 5, Ontario. Biennial.

Dec. 4-7. Canadian Construction Show. Industrial and Trade Shows of Canada, 481 University Ave., Toronto, Ontario.

Vancouver

April. Pacific Int. Motoramer. 6871 Raleigh, Vancouver 16, British Columbia. Annual.

May 6-8. Pacific Education Show, 2000 West 12th Avenue, Vancouver, British Columbia. Annual.

November. Pacific Int. Auto Show. 1451 Adanac Street, Vancouver 6, British Columbia. Annual.

Chile

Santiago

October. FISA—Santiago Int. Agricultural & Industrial Fair. Storandt Silva y Cia Ltda. Casilla 4084, Santiago de Chile.

Colombia

Bogota

Aug. 5-20. 9th Int. Fair of Bogota. Corporacion de Ferias y Exposiciones S.A., Feria Internacional de Bogota Carrera 40, No. 22C-67, Bogota. Biennial.

Cyprus

Nicosia

September. Cyprus Int. Fair. Organizing Committee, Cyprus International Fair Ltd., 250 Ledra St., P.O. Box 1094, Nicosia. Annual.

Czechoslovakia

Bratislava

June 24-30. INCHEBA—Int. Chemical Exbn. Drienova ulice 24, Bratislava. Annual.

Oct. 15-24. AVRO 72—5th Int. Audio, Video & Radio Exbn. "Made in Publicity," Opletalova 5, Prague 1. Annual.

Brno

April 28-May 5. 3rd Int. Consumer Goods Exbn. Brno Trade Fairs and Exhibitions, Vystaviste 1, Brno. Annual.

July 2-30. FONDEX—1st Int. Exbn. of Foundry Equipment. Brno Trade Fairs and Exhibitions, Vystaviste 1, Brno. (First show; probably biennial.)

Sept. 8-17. ★14th Int. Engineering Fair. Brno Trade Fairs and Exhibitions, Vystaviste 1, Brno. Annual.

Ostrava

April. INTRAMA 72—3rd Int. Materials Handling Exbn. "Made in Publicity," Opletalova 5, Prague 1. Biennial.

Plzen

June 28-July 9. EX PLZEN—7th Int. Exhibition of Gastronomy & Tourism. "Made in Publicity," Opletalova 5, Prague 1. Annual.

Prague

Feb. 23-March 2. REPRO 72—3rd Int. Exbn. of Reprographical Equipment & Rationalization Equipment for Technical and Managerial Work. "Made in Publicity," Opletalova 5, Prague 1. Triennial.

April 10-15. ALIMA 72—3rd Int. Exbn. of Modern Food Processing Equipment. "Made in Publicity." Opletalova 5, Prague 1. Biennial.

Sept. 10-18. MEDIEXPO 72—2nd Int. Exbn. of Medical Equipment & Pharmaceuticals. "Made in Publicity," Opletalova 5, Prague 1. Annual.

Oct. 15-24. AVRO 72—5th. Int. Audio, Video & Radio Exbn. (to be held simultaneously in Bratislava). "Made in Publicity," Opletalova 5, Prague 1. Annual.

Nov. 13-20. PRAGOTHERM 72—5th Int. Exbn. of Heating & Airconditioning Technology & Sanitary Facilities. "Made in Publicity," Opletalova 5, Prague 1. Annual.

Denmark

Copenhagen

Jan. 3-5. Scandinavian Dental Fair. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Annual.

Jan. 11-14. SET-72—Scandinavian Institution Equipment Trade Fair. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Annual.

Feb. 5-13. Int. Boat Show in Copenhagen. Skandinavisk Baadudstilling A/S, 8 Badstuestraede, DK-1209 Copenhagen K. Annual.

Feb. 17-19. Scandinavian Menswear Fair. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Annual.

March 12-15. Scandinavian Fashion Week Ladies' Wear. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Semi-annual (spring and fall).

March 15-19. AURA IV—Technical Fair for Automotive & Workshop Equipment. Udstillingshallen Forum A/S, 1 Jul. Thomsens Plads, DK-1925 Copenhagen V. Biennial.

March 21-23. SCAN FAIR 72—Scandinavian Hardware Fair. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Annual.

April 11-16. NORD-PLAST 72—5th Int. Plastics Fair. Udstillingsselskabet U.F.E.S.A.S., 5 Vestagervej, DK-2100 Copenhagen 0. Triennial.

April 29-May 2. Scandinavian Gold & Silver Fair 72. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Annual.

June 2-7. NORD-TRANS 72—Internal Transport Exbn. Udstillingsselskabet U.F.E.S.A.S., 5 Vestagervej, DK-2100 Copenhagen 0. Triennial.

June 18-23. 8th Int. Congress on Clinical Chemistry. Department of Clinical Chemistry, Rigshospitalet, 9 Blegdamsvej, DK-2100 Copenhagen 0. One-time event.

Aug. 31-Sept. 7. K-72—Int. Office Equipment Exbn. Udstillingsselskabet U.F.-E.S.A.S., 5 Vestagervej, DK-2100 Copenhagen 0. Triennial.

Sept. 17-20. Scandinavian Fashion Week Ladies' Wear—Int. Section. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Semiannual (spring and fall).

Sept. 25-29. 4th World Conference on Medical Education. DIS Congress Service, 36 Skindergade, DK-1159 Copenhagen K. One-time event.

Sept. 30-Oct. 6. ELECTRON 1972—Electronics Trade Fair. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Triennial.

Oct. 13-22. Copenhagen Trade Fair 1972. Erhvervenes Udstillingsselskab Bella-Centra A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Annual.

Oct. 31-Nov. 5. INTERTOOL 72—Tool & Machine Tool Trade Fair. Erhvervenes Udstillingsselskab Bella-Centret A/S, 64 Hvidkildevej, DK-2400 Copenhagen NV. Triennial.

Herning

March 29-April 3. Ferie for Alle—Holiday & Vacation Show. Herning Hallen A/S, DK-7400 Herning. Annual.

Sept. 2-10. H-72—Technical Industries Fair. Herning Hallen A/S, DK-7400 Herning. Biennial.

Naestved

Aug. 18-27. Bo-72—Housing Exbn. Bo-Fair A/S, 4 Randtoftevej, DK-2670 Greve Strand. Annual, but held in different locations.

Randers

Sept. 29-Oct. 8. BYG-72—Housing Exbn. Byg-Fair A/S, 4 Randtoftevej, DK-2670 Greve Strand. Annual, but held in different locations.

Ecuador

Guayaquil

October. Ecuadorean Int. Trade Fair, P.O. Box 4184, Guayaquil. Annual.

El Salvador

San Salvador

Nov. 3-20. ●5th Int. Fair of El Salvador. Comite Ejecutivo de la Feria Internacional de El Salvador, Boulevard de Las Fuerzas Armadas No. 222, San Salvador, El Salvador, C.A. Biennial. (DIB 71-02-400)

Egypt

Cairo

January. Arab Fair for Textile Industries. 6 Adly St. Annual.

March 2-23. Cairo Int. Fair. Egyptian General Organization for International Exhibitions and Fairs. Annual. (DIB 71-11-452)

Finland

Helsinki

Feb. 11-20. VENE 72—Int. Boat Show. Finnish Fair Corp., 00250 Helsinki 25. Annual.

May 4-8. LVI 72 VVS—Int. Heating, Plumbing & Air Conditioning Fair. Finnish Fair Corp., 00250 Helsinki 25. Quadrennial.

Sept. 15-24. Helsinki Int. Trade Fair. Consumer goods fair. Finnish Fair Corp., 00250 Helsinki 25. Biennial. (DIB 71-11-401)

Keimola

Sept. 7-11. MAXPO—Earthmoving Equipment Exbn. Finnish Fair Corp., 00250 Helsinki 25. Biennial.

Turku

March 4-12. MERI KUTSUU 72—Int. Boat Show. Annual.

Aug. 4-9. FARMA—Int. Agricultural Fair. Varsinais-Suomen Maatalousyhidistys, Humalistonkatu 7, Turku. Triennial.

France

Besancon

April. MICRONORA—Int. Clock & Watchmaking Exbn. M. Lagrange, Parc des Expositions Planoise 25, Besancon. Biennial.

Bordeaux

May 6-15. Int. Trade Fair. Admin. de la Foire Internationale de Bordeaux BP 55, Grand Parc, 33, Bordeaux.

Sept. 30-Oct. 7. Radio & TV Exbn. Parc des Expositions. BP 55, Grand Parc, 33, Bordeaux. Biennial.

Cannes

Jan. 15-21. Int. Record & Music Publish-

ing Market. 15 rue de la Paix, 75 Paris 2e. Annual.

March 5-10. VIDCA—Int. Market for Videocassette & Video Recorders. 42 Ave. Sainte-Foy, 92, Neuilly sur Seine.

April 15-20. Int. Television Programme Market—MIP—TV. 42 Ave. Sainte-Foy, 92, Neuilly sur Seine. Annual.

June. Int. Show for Private Aviation. M. Reuter, 18 blvd. Maillot, 92, Neuilly sur Seine.

Dijon

Oct. 31-Nov. 12. Gastronomical Fair. Foire de Dijon, BP 122, 21, Dijon. Annual.

Epinal

April 29-May 7. National Forestry Fair. Petit Champ de Mars, Boite Postale 5, 88, Epinal. Biennial.

Grenoble

Feb. 26-29. Int. Winter Sports Equipment Trade Show.

May 15-24. Spring Fair of Grenoble. Semiannual.

Oct. 16-24. Fall Fair of Grenoble. Noreau Palais des Exp. Parc Olympique, 38, Grenoble. Semiannual.

Lille

April 14-24. Lille Int. Trade Fair. Grand Palais, 59, Lille. Annual.

Limoges

May 6-14. Fair of Limoges. 59 Rue Montmailler, Limoges. Annual.

Lyons

October. MEUROPAM and PRO-MEUROPAM —European Furniture & Furnishings Exbn. Societe de la Foire Internationale de Lyon Palais des Congres, 69, Lyon 6e. Annual.

Marseille

April 13-24. Int. Trade Fair of Marseille. Parc Chanot Boite Postale 91 Giniez, 13, Marseille. Annual.

Metz

March 28-April 2. EXPOMETZ—Int. Fair of Metz. 1-3 Ave. de L'Amphitheatre. Annual.

Sept. 28-Oct. 9. Int. Trade Fair. 1-3 Ave. de L'Amphitheatre. Annual.

Mulhouse

May 20-31. Fair of Mulhouse. 6 Ave. Rbt. Schuman Mulhouse. Annual.

Nancy

May 6-17. Nancy Trade Fair. Fiore Nationale de Nancy Parc des Expositiones, BP 593, Nancy 54. Annual.

Sept. 19-23. Int. Safety Exposition. M. Detourbet, BP 593, Parc des Exp. 54, Nancy. Biennial.

Nice

March 2-13. Nice Int. Tourism Exbn. 18 Blvd. Maillot, 92 Neuilly sur Seine.

Oyonnax

June 12-18. Int. Plastics Exbn. Hotel de Ville, Oyonnax.

June. Int. Spectacles & Optical Materials Exbn. Hotel de Ville, Oyonnax. (Ain).

Paris

Jan. 9-14. Leather Goods & Luggage Exbn. 6 Rue Beranger, 75, Paris 3e. Semiannual.

Jan. 13-24. Int. Pleasure Yachting Exbn. 15 Rue de La Paix, 75, Paris 2e. Annual.

Jan. 16-24. Jewelry, Gold & Silver, Clockware, Gift Week. 10 Rue Charlot 75, Paris 3e. Semiannual.

Jan. 19-24. Commercial & Professional Art Workshops Exbn. 45 Rue des Petites Ecuries, 75, Paris 10e. Semiannual.

Jan. 19-24. Int. Carpet & Floor Coverings Exbn. 22 Av. Franklin Roosevelt, 75, Paris 8e. Annual.

Jan. 20-24. Int. Lighting Exbn. 22 Av. Franklin Roosevelt, 75, Paris 8e.

Jan. 20-24. National Furniture Exbn. 22, Av. Franklin Roosevelt, 75, Paris 8e. Annual.

Feb. 12-15. Corsetry & Women's Lingerie Exbn. 11 Rue Anatole de la Forge, 75, Paris 17e. Annual.

Feb. 12-15. Knitwear Industries Exbn. 11 Rue Anatole de la Forge, 75, Paris 17e. Semiannual.

Feb. 12-15. European Men's Wear Show. 8 Rue Richelieu, 75 Paris 1er. Semiannual.

Feb. 12-15. Children's Fashion Exbn. 11 Rue Anatole de la Forge, 75, Paris 17e. Semiannual.

Feb. 12-18. Int. Games & Toys Exbn. 93 Rue de Turenne, 75, Paris 3e. Annual.

March 4-11. Int. Arts of Homemaking Exbn. 15 av. de la Division-Leclerc, 92, Puteaux. Annual.

March 5-11. Int. Agricultural Machinery Show. 95 Rue Saint Lazare, 75, Paris 9e. Annual.

March 5-12. Int. Agricultural Show. 19 Blvd. Henri IV, 75, Paris 4e. Annual.

March 5-12. Int. Power Gardening & Cultivation Show. 95 Rue Saint Lazare, 75, Paris 9e. Annual.

March 9-14. Int. Audio Festival. 14 Rue de Presles, 75, Paris 15e. Annual.

April 6-11. Int. Electronic Components Exbn. 14 Rue de Presles, 75, Paris 15e. Annual. (DIB 71-06-401)

April 9-14. Int. Tableware Show. 32 Rue de Paradis, 75, Paris 10e. Annual.

April 14-18. Int. Fur Industries Exbn. 36 Ar. de l'Opera, 75, Paris 2e. Annual.

April 15-20. Int. Ladies' Ready-to-Wear Clothing Exbn. & Section Boutique. 69 Rue de Richelieu, 75, Paris 2e. Semiannual. (DIB 71-08-402)

April 19-27. French Machine Tool & Mechanical Equipment Exbn. Compagnie Francaise d'Editions. 20 Rue Carpeaux, 9e Puteaux. Biennial.

April 29-May 14. Paris Int. Trade Fair. Comite des Expositions, 7 Rue Copernic, 75, Paris 16e. Annual.

May 6-9. INTERSUC—Int. Confectionery, Chocolate, & Biscuit Trade Exbn. 48 Av. de Villiers, 75, Paris 17e. Annual.

May 25-June 4. EXPOMAT—Public Works & Building Equipment Int. Exbn. 1 Ar. Niel, 75, Paris 17e. Biennial.

May 31-June 8. Electrical Equipment Exbn. 11 Rue Hamelin, 75, Paris 16e. Biennial.

May 31-June 12. Int. Radio, Television, & Electroacoustics Show. 14 Rue de Presles, Paris, 15e.

June 2-6. APPROFAL—Int. Exbn. of Supplies & Materials for Manufacture of Furniture, Chairs & Bedding. 7 Rue Copernic, 75, Paris 16e. Biennial.

June 2-8. Int. Exbn., Man, Air & Water. TECHNOEXPO, 8 Rue La Michodiere, 75, Paris 2.

June 2-8. INTERCLIMA—Int. Heating, Refrigeration & Air Conditioning Technical Exbn. 7, Rue Copernic, 75, Paris 16e. Biennial.

June 2-8. INTERCIRCULATION—Traffic Control & Safety Exbn.

June 2-8. Business Gift Fair. 24 Place Malesherbes, 75, Paris, 17e. Annual.

June 2-8. EXPOBOIS—Int. Woodworking Machinery & Wood Industry Exbn. 150 Blvd. Bineau, 92, Neuilly Sur Seine.

June 18-23. Leather Goods & Luggage Exbn. 6 Rue Beranger, 75, Paris 3e. Semiannual.

Sept. 2-5. European Men's Wear Show. SEHM 8 Rue de Richelieu, 75, Paris 1er. Semiannual.

Sept. 2-7. Int. Leather Week. 2 Rue Edouard V11, 75, Paris 9e. Annual.

Sept. 3-11. Jewelry, Gold & Silver, Clockware, & Gift Week. 10 Rue Charlot, 75, Paris 3e. Semiannual.

Sept. 6-11. Commercial & Professional Art Workshops Exbn. 45 Rue des Petites Ecuries, 75, Paris 10e. Semiannual.

Sept. 9-12. Knitwear Industries Exbn. 11 Rue A. de la Forge, 75, Paris 17e. Semiannual.

Sept. 9-12. Children's Fashion Exbn. 11 Rue A. de la Forge, 75, Paris 17e. Semiannual.

Sept. 15-18. SPQ—Industrial Hardware Show. 42 Rue du Loure, Paris 1er. Biennial.

Sept. 21-30. Int. Exbn. of Data Processing of Communication & Office Organization. 6 Place de Valois, 75, Paris 1er. Annual.

Sept. 28-Oct. 8. Int. Automobile, Bicycle, Motorcycle & Sport Show. 3 Ar. du President Wilson, 75, Paris 16e. Annual.

Sept. 28-Oct. 8. Int. Camper & Mobile Home Exbn.

Oct. 12-23. EQUIPHOTEL—Int. Hotel & Restaurant Exbn. 13 Rue de Liege, 75, Paris 9e. Annual.

Oct. 14-16. SISEL—Int. Sporting Goods Exbn. 15 Rue de la Paix, 75, Paris 2e. Annual.

Oct. 21-26. Int. Ladies' Ready-to-Wear Clothing Exbn. & Section Boutique. 69 Rue de Richeliem, 75, Paris 2e. Semiannual.

Nov. 13-18. Int. Bottling Equipment Exbn. 7 Rue La Boetie 75, Paris 8e. Biennial.

Nov. 13-18. Int. Exbn. of Equipment for Breweries, Packaging & Sale of Beer. 7 Rue La Boetie, 75, Paris 8e. Biennial.

Nov. 13-18. Int. Packaging Exbn. 20 Rue Carpeaux, 92, Puteaux. Biennial.

Nov. 13-19. SIAL—Int. Food Products Exbn. 43 Rue de Naples, 75, Paris 8e. Biennial.

Nov. 13-19. Int. Food Industries Equipment Exbn. 42 Rue du Lourre, 75, Paris 1er.

Nov. 13-20. Int. Fair of Machinery & Techniques for the Meat Industry. 42 Rue du Lourre, 75, Paris 1er.

Strasbourg

Sept. 7-18. Strasbourg Int. Trade Fair. Mr. Wach, Palais des Expositions, 67, Strasbourg.

Toulouse

April 14-25. Toulouse Int. Trade Fair. Mr. Lacassague, Parc des Expositions, 31, Toulouse.

Toussus le Noble

Sept. 14-19. Autumn Show for Private Aviation. 18 Blvd. Maillot, 92, Neui Neuilly sur Seine.

Germany, Fed. Rep.

Berlin

Jan. 28-Feb. 6. Int. Green Week Berlin 1972. Messedamm 22, 1 Berlin 19. Annual. (DIB 71-04-405)

Feb. 26-March 5. Int. Boat Show & Watersport Exbn. Berlin 1972. Messedamm 22, 1 Berlin 19. Annual. (DIB 71-05-406)

Feb. 26-March 5. 6th Int. Tourism Exchange (ITB) Berlin. Messedamm 22, 1 Berlin 19. Triennial.

Feb. 28-March 5. 86th Int. Berlin Fashion Week. Hardenbergstrass 16-18, 1 Berlin 12. Quarterly.

April 9-13. 7th INTERCHIC—Berlin Fashion Fair. Messedamm 22, 1 Berlin 19. Semiannual. (DIB 70-12-406)

April 9-19. 87th Int. Berlin Fashion Week. Hardenbergstrass 16-18, 1 Berlin 12. Quarterly.

May 23-28. Pharmaceutical & Medico-Technical Exbn. Messedamm 22, 1 Berlin 19. Annual.

Aug. 29-Sept. 3. 10th Overseas Import Fair, Partners for Progress. Messedamm 22, 1 Berlin 19. Annual.

Sept. 11-17. 88th Int. Berlin Fashion Week. Hardenbergstrass 16-18, 1 Berlin 12. Quarterly.

Sept. 15-24. German Industries Exbn. Berlin 1972. Messedamm 22, 1 Berlin 19. Annual. (DIB 70-11-410)

Oct. 8-12. 8th INTERCHIC—Berlin Fashion Fair. Messedamm 22, 1 Berlin 19. Semiannual. (DIB 71-06-403)

Oct. 8-19. 89th Int. Berlin Fashion Week. Hardenbergstrass 16-18, 1 Berlin 12. Quarterly.

Nov. 4-12. German Restaurant & Food Exbn. Messedamm 22, 1 Berlin 19. Annual.

Cologne

Jan. 4-6. IFADA—Int. Exbn. of Ladies' Hat Industry. Postfach 290225, 5 Koln 1. Semiannual.

Jan. 18-23. Int. Furniture Fair. Postfach 210760, 5 Koln 21. Biennial.

Feb. 6-9. Int. Housewares & Domestic Appliances Fair. Postfach 210760, 5 Koln 21. Annual.

Feb. 18-20. Int. Fashion Fair—Special Fair for Men's Leisure Wear. Postfach 210760, 5 Koln 21. Annual.

Feb. 22-26. ISM 72—Int. Sweets & Biscuits Fair. Postfach 210760, 5 Koln 21. Annual.

Feb. 25-27. Int. Hardware Fair. Postfach 210760, 5 Koln 21. Annual.

March 10-12. Int. Fair for the Child. Postfach 210760, 5 Koln 21. Semiannual.

June-July. IFADA—Int. Exbn. of Ladies' Hat Industry. Cologne. Postfach 290225, 5 Koln 1. Semiannual.

August. Int. Men's Fashion Week. Postfach 210760, 5 Koln 21. Annual.

September. Int. Household Goods & Hardware Fair With Garden Trade Fair. Postfach 210760, 5 Koln 21. Annual.

September. Int. Fair of Lingerie, Foundation Garments, Underwear & Swimwear. Postfach 210760, 5 Koln 21. Annual.

Sept. 16-19. IFMA—Int. Bicycle & Motor Cycle Exbn. Postfach 210760, 5 Koln 21. Annual.

Sept. 23-Oct. 1. PHOTOKINA—World Fair of Photography. Postfach 210760, 5 Koln 21. Biennial.

October. SPOGA—Int. Trade Fair of Sporting Goods, Camping Equipment & Garden Furniture. Postfach 210760, 5 Koln 21. Annual.

October. Int. Fair for the Child. Postfach 210760, 5 Kohn 21. Semiannual.

Nov. 12-15. EUROSNACK—Int. Fast Food Service Fair. Postfach 210760, 5 Koln 21. Biennial.

Duesseldorf

Jan. 22-30. BOAT 72—Int. Boat Exbn. Duesseldorf. Postfach 10203, 4 Duesseldorf 10. Annual.

Feb. 23-27. EUROSHOP 72—4th Int. Fair, Modern Shopfitting & Display With Congress. Postfach 10203, 4 Duesseldorf 10. Biennial.

March 12-15. 92nd IGEDO—Int. Fashion Trade Fair. Freiligrathstrasse 28, 4 Duesseldorf. Quarterly.

March 25-27. 33rd GDS—European Footwear Sample Display. Postfach 10203, 4 Duesseldorf 10. Annual.

April 23-27. 93rd IGEDO—Int. Fashion Trade Fair. Freiligrathstrasse 28, 4 Duesseldorf. Quarterly.

May 26-June 8. ★DRUPA 1972—6th Int. Fair For Printing & Paper. Postfach 10203, 4 Duesseldorf 10. Quadrennial.

Sept. 3-6. 94th IGEDO—Int. Fashion Trade Fair. Freiligrathstrasse 28, 4 Duesseldorf. Quarterly.

Sept. 14-18. INDROFA—Fair of Cosmetic Articles & Soaps—Int. Trade Exbn. for Beauty, Health & Hygiene. Postfach 10203, 4 Duesseldorf 10. Biennial.

Sept. 23-25. 34th GDS—European Footwear Sample Display. Postfach 10203, 4 Duesseldorf 10. Annual.

Oct. 3-6. West German Office Equipment Show. Postfach 10203, 4 Duesseldorf 10. Annual.

Oct. 22-26. 95th IGEDO—Int. Fashion Trade Fair. Freiligrathstrasse 28, 4 Duesseldorf. Quarterly.

Essen

April 8-16. CAMPING 72—19th German Camping Exbn. With Int. Boat Show. Norbertstrasse 56, 43 Essen. Annual.

May 10-14. 7th Int. Tire Dealers, Vulcanizers & Retreader Trade Fair. Norbertstrasse 56, 43 Essen.

June 6-9. Exbn. for Hospital Equipment & Supplies. Norbertstrasse 56, 43 Essen. Annual.

October. 11th Int. Caravan Exbn. Norbertstrasse 56, 43 Essen. Annual.

Frankfurt

Jan. 12-16. Int. Trade Fair for Home Textiles, Floor Coverings & Household Textiles. Postfach 970126, 6 Frankfurt am M. 97. Annual.

March 5-9. Frankfurt Int. Fair. Postfach 970126, 6 Frankfurt am M. 97. Semiannual. (DIB 71-04-407)

April 19-23. Int. Fur Fair. Messe GmbH, Bettinaplatz 1, 6 Frankfurt am M. 7. Annual. (DIB 71-06-404)

May 15-18. 27th INTERSTOFF—Trade Fair for Clothing Textiles. Postfach 970126, 6 Frankfurt am M. 97. Annual. (DIB 71-01-402)

May 28-29. Trade Exbn. for Barbers' & Hairdressers' Supplies, Physical Culture & Cosmetics. Merlostrasse 6, 6 Koln. Annual.

June 4-11. 5th IWC—Int. Exbn. of Laundry & Dry Cleaning. Postfach 970126, 6 Frankfurt am M. 97. Triennial.

June 24-July 2. INTERSCHUTZ—Int. Exbn. for Fire Protection & Disaster Control. Postfach 970126, 6 Frankfurt am M. 97.

Sept. 3-6. Frankfurt Int. Fair. Postfach 970126, 6 Frankfurt am M. 97. Semiannual. (DIB 71-11-404)

Sept. 8-12. 3rd Int. DLG Dairy Engineering Techniques Exbn. Zimmerweg 16, 6 Frankfurt am M. Quadrennial.

Sept. 28-Oct. 3. Frankfurt Book Fair. Postfach 3914, 6 Frankfurt am M. 1. Annual.

Oct. 5-12. 13th IKA—Int. Culinary Art Exbn. & 22nd Federal German Hotel & Restaurant Trade Show. Postfach 970126, 6 Frankfurt am M. 97. Annual.

Nov. 21-24. 28th INTERSTOFF—Trade Fair for Clothing Textiles. Postfach 970126, 6 Frankfurt am M. 97. Annual. (DIB 71-07-407)

Friedrichshafen

Sept. 30-Nov. 8. 11th INTERBOAT—Int. Boat Show. Riedlepark, 799 Friedrichshafen a.B. Annual.

Hamburg

Feb. 29-March 4. INTERTRAFFIC 72—3rd Int. Exbn. for Integrated Transport. Jungiusstrasse, 2 Hamburg 36. (DIB 71-06-455)

March 16-22. INTERNORGA—Int. Trade Exbn. for Gastronomy, Bakeries & Confectioners. Jungiusstrasse, 2 Hamburg 36. Annual.

April 15-17. Fashion Fair. Jungiusstrasse, 2 Hamburg 36. Semiannual.

Sept. 15-21. LEFA 1972—Int. Exbn. of Foodstuffs. Jungiusstrasse, 2 Hamburg 36. Biennial.

Oct. 3-7. Int. Ship & Machinery Exbn. Jungiusstrasse, 2 Hamburg 36. Biennial.

Oct. 14-16. Fashion Fair. Jungiusstrasse, 2 Hamburg 36. Semiannual.

Oct. 18-21. EMTEC—European Marine Trade Exbn. & Congress. Jungiusstrasse, 2 Hamburg 36.

Oct. 29-Nov. 5. 13th German Boat Show Int. Jungiusstrasse, 2 Hamburg 36. Annual. (DIB 71-04-414)

EXHIBITING ABROAD—*Displays by U.S. companies during exhibitions abroad have proved their usefulness again and again to both American and foreign businessmen. Above, cleaning systems for the papermaking industry is the topic of conversation at the Oakite Products booth during an exhibition at the U.S. Trade Center, London.*

Hanover

March 14-18. DIDACTA—11th European Educational Materials Fair. 3 Hanover, Messegelaende. Biennial.

April 20-28. Hanover Fair 1972. 3 Hanover—Messegelaende. Annual. (DIB 71-08-403)

April 21-May 1. ★German Aviation Show 1972. Heerstrasse 90, 53 Bonn-Bad Godesberg. Biennial.

May 28-June 4. 52nd DLG 1972—Int. Agricultural Show. Zimmerweg 16, 6 Frankfurt am M.

Karlsruhe

Aug. 27-Sept. 2. Medical & Therapeutical Exbn. held in connection with 24th German Therapeutical Week. Postfach 1208, 75 Karlsruhe 1. Biennial.

Munich

Jan. 29-Feb. 6. BAU 72—Int. Trade Exbn. of Building Materials, Structural Elements & Interior Finishing. Theresienhoehe 13, 8 Munchen 2. Biennial. (DIB 71-04-406)

March 9-12. ISPO—Int. Sports Equipment Fair. Theresienhoehe 13, 8 Munchen 2. Annual. (DIB 71-04-403)

March 19-23. Fashion Week Munich. Theresienhoehe 15, 8 Munchen 2. Semiannual. (DIB 71-07-408)

April 8-16. IHM 72—24th Int. Light Industries & Handicrafts Fair. Theresienhoehe 14, 8 Munchen 2.

Oct. 1-5. Fashion Week Munich. Theresienhoehe 15, 8 Munchen 2. Semiannual.

Oct. 19-25. IKOFA 72—9th Int. Exbn. of Food Industry. Theresienhoehe 13, 8 Munchen 2. Biennial. (DIB 70-11-409)

Nov. 3-9. IFAT—3rd Int. Sewage & Refuse Engineering Exbn. Theresienhoehe 13, 8 Munchen 2.

Nov. 23-29. ELECTRONICA 72—Int. Trade Fair for Production in Electronic Industry. Theresienhoehe 13, 8 Munchen 2. Biennial. (DIB 70-12-411)

Nuremberg

Feb. 5-11. Int. Toy Fair. Berliner Platz 24, 85 Nurnberg. Annual. (DIB 71-04-402)

Offenbach

March 4-9. Int. Leather Goods Fair. Postfach 32, 605 Offenbach am M. 1. Semiannual. (DIB 70-11-412)

Sept. 2-6. Int. Leather Goods Fair. Postfach 32, 605 Offenbach am M. 1. Semiannual. (DIB 71-04-416)

Saarbruecken

April 15-23. Int. Saar Fair. Messegelaende, 66 Saarbruecken. Annual.

Stuttgart

March 22-26. INTHERM 72—Int. Trade Fair for Oil Firing, Gas Firing, Heating, Air Conditioning, Environmental Engineering. Postfach 990, 7 Stuttgart 1. Annual. (DIB 71-04-415)

April 13-19. INTERGASTRA 72—Int. Trade Fair for Hotel, Catering & Bakery Trades. Postfach 990, 7 Stuttgart 1. Annual. (DIB 70-12-409)

Aug. 19-27. INTERVITIS 72—Int. Wine-Growing Exbn. With 48th German Wine-Growing Congress. Postfach 990, 7 Stuttgart 1.

Germany, Soviet Zone

Leipzig

March 12-19. Int. Spring Trade Fair. Leipziger Messeamt DDR, 701 Leipzig Postfach 720. Annual.

Sept. 3-10. Int. Fall Trade Fair. Leipziger Messeamt DDR, 701 Leipzig Postfach 720. Annual.

Ghana

Accra

February 1973. Ghana Int. Trade Fair. Ministry of Trade, P.O. Box M-47 Accra. Biennial.

Greece

Athens

March 18-26. XENIA 72—Exbn. of Tourism, Vacations & Hotel Equipment. Greek Organization of Technological Exbns., 50A Nikis St., Athens 119. Not regularly scheduled. (DIB 71-09-451)

April 22-30. ELECTRON 72—Exbn. of Electronic Business & Scientific Equipment, Computers, TV & Telecommunications Equipment. Greek Organization of Technological Exbns., 50A Nikis St., Athens 119. Not regularly scheduled.

Thessaloniki

Sept. 3-24. 37th Int. Fair of Thessaloniki. International Fair of Thessaloniki, Thessaloniki. Annual. (DIB 71-02-402)

Hong Kong

Hong Kong

December. 30th Exbn. of Hong Kong Manufactured Products. All imported industrial machinery and raw materials are eligible for exhibit. Hong Kong's Chinese Manufacturers' Association. Annual.

Hungary

Budapest

April 17-21. European Opthalmological Congress. 1 Eye Clinic, University Medical School VIII, 15 Budapest.

May 19-29. Budapest Int. Trade Fair. Budapest Exbn. Office, Varosliget, Budapest XIV.

India

New Delhi

Nov. 3-17. ECAFE—Asian Int. Trade Fair. P.O. Box 425, New Delhi.

Indonesia

Djakarta

June-July. ●Djakarta Fair—General Trade Fair. Djakarta Fair Committee, Lapangan Monas, Djakarta.

Ireland

Dublin

Feb. 1-5. Irish Boat Show. Irish Yachting Assn., 2 Roby Pl., Dunlaoghairo, Co. Dublin.

Feb. 29-March 3. Business Equipment Show. Irish Exbns. Ltd., 20 Merrion Sq., Dublin 2.

March 7-12. Irish Furniture & Furnishings Fair. Exhibition Organisers and Display Ltd., 29 Raglan Rd., Dublin, 4.

May 2-6. Spring Show & Industries Fair. Royal Dublin Society, Ballsbridge, Dublin.

Aug. 8-13. Horse Show. Royal Dublin Society, Ballsbridge, Dublin, 4.

Sept. 12-16. Computer & Data Processing Equipment Exbn. ITE Consultants, 34 Lower Leeson St., Dublin, 2.

Northern Ireland

Belfast

Feb. 1-5. Belfast Telegraph Boats & Leisure Exbn. Elite Promotions, 17 Fitzwilliam St., Belfast BT9 6AW.

March 5-10. Ulster Motor Show. Elite Promotions, 17 Fitzwilliam St., Belfast BT9 6AW.

May 24-27. Annual Show & Industrial Exbn. Royal Ulster Agricultural Society, Kings Hall Balmoral, Belfast BT9 6GW.

Iran

Tehran

May 13-18. ★U.S. Solo Exbn.: Selected Industrial Equipment.

Israel

Tel Aviv

March 6-10—★U.S. Solo Exbn: Electronics Production and Test Equipment. (Participation closed).

May 23-June 10. Tel Aviv Int. Trade Fair. Modern living exhibit includes modern building equipment and techniques. Yerid Hamizrakh Exbns. Co. Ltd., P.O. Box 21075, Tel Aviv.

Oct. 9-18. EXPOMEDICAL 72—Hospital & Medical Equipment & Pharmaceutics Exbn. Yerid Hamizrakh Exbns. Co. Ltd., P.O. Box 21075, Tel Aviv. Irregular frequency.

Nov. 1-10. 2nd Int. Hotel & Catering Exbn. Yerid Hamizrakh Exbns. Co. Ltd., P.O. Box 21075, Tel Aviv. Triennial.

Italy

Bari

January. MACEF-LEVANTE — Household Goods, Glassware, Ceramics, Hardware & Tool Show. Ente Autonoma Fiera del Levante, Bari. Annual.

May 1-9. EXPOSPORT LEVANTE—Sport Equipment Show. Ente Autonomo "Fiera del Levante," Bari Annual.

May. SA-CHI-A—Show of Chemical, Industrial & Agricultural Techniques. Unime Nazionale Chimici Italiani, Via Marianna Dioniogi 29, Roma. Annual.

May-June. MOBIL-LEVANTE—Furniture & Interior Decoration Show. Ente Autonomo "Fiera del Levante," Bari. Annual.

September. LEVANT FAIR—Int. Samples Fair. Ente Autonomo "Fiera del Levante," Bari. Annual. (DIB 71-12-406)

Bologna

March. Int. Exbn. of Footwear Fashions, Via G. Ciamician 4, Bologna. Annual.

April. Children's Book Fair. Via G. Ciamician 4, Bologna. Annual.

April 8-12. N.T.A.—Exbn. of New Learning Techniques. Via G. Ciamician 4, Bologna. Annual.

April-May. COSMOPROF—Int. Perfumery & Cosmetics Show. Via G. Ciamician 4, Bologna. Annual.

May. Int. Samples Fair. Via G. Ciamician 4, Bologna. Annual.

September. MODA-MAGLIA—Int. Exbn. of Knitwear. Via G. Ciamician 4, Bologna. Annual.

September. SIA—Int. Food Show. Via G. Ciamician 4, Bologna. Annual.

October. SAIE—Int. Exbn. of Industrialization in Building. Via G. Ciamician 4, Bologna. Annual.

November. EIMA—Int. Show of the Farm Machinery Industries. Via G. Carducci 2, Roma. Annual.

Bolzano

September. Int. Samples Fair. Via Roma 18, Bolzano. Annual.

Florence

April 22-May 7. Int. Handicrafts Exhibits & Fair. Annual.

September. Sample Exhibit of Footwear, Leather Goods & Leather. Via Valfonda 9, Florence. Annual. (DIB 71-11-404)

Genoa

January-February. Int. Boat Show & International Exhibition of Underwater Equipment. Ente Autonoma "Fiera Internazionale di Genova," Genoa. Annual.

May. International Novelty Gift Fair and World Travel Holiday Show. Ente Autonomo "Fiera Internazionale di Genova," Genoa. Annual. (DIB 71-08-408)

October. BIBE—International Wine and Liquor Show. Fiera Internazionale di Genova, Genoa. Annual.

October-November. Third Expo-Tecno-Dental Fair & First Medi-Dental Exbn. UNIDI (Unione Nazionale Industries Dentari Italiano). Fiera Internazionale di Genova, Genoa. Biennial or triennial.

November. TECNHOTEL—Int. Show of Hotel and Travel Equipment. Ente Autonomo Fiera Internazionale di Genova, Genoa. Annual.

November. TECNHOSPITAL—Int. Show of Equipment for Hospitals, Clinics and Convalescent Institutions. Ente Autonomo Fiera Internazionale de Genova, Genoa. Annual.

Messina

August. Mediterranean Int. Samples Fair. Ente Autonomo Fiera di Messina, Messina. Annual. (DIB 71-12-405)

Milan

January. COMIS TRICOT—Int. Knitwear Show. Centro Organizzazione Mostre Internazionali Specializzate, Piazzale Cadorna 2, Milan. Semiannual.

January. MIPEL—Int. Leather Goods Show. Associazione Nazionale Industriali Manifatturieri delle Pelli e del Cuoio, Via G. Leopardi 14, Milan. Semiannual.

January-February. Int. Toy Show. Salone Internazionale del Giocattolo, Via Cassiodoro 3, Milan. Annual.

January -February. CHI - BI - CAR—Int. Knickknacks. Costume Jewelry, Stationery and Giftware Show. Salone della Chincaglieria, Bigiotteria, Cartoleria ed Articoli da Regalo, Via Biumi 14, Milan. Annual.

March. Int. Heating, Air Conditioning, Refrigeration, Plumbing and Sanitary Equipment Exbn. and Conv. Mostra-Convequo Risdaldamento, Condogimanuento, Refrigerazione, e Indrosanitaria, Via Fratelli Bressan 2, Milan. Annual.

March. MIAS—Int. Sporting Goods Show. Mercato Internazionale dell 'Articolo Sportivo, Viale Teodorico 19/2, Milan. Semiannual.

March. FLUID—Exbn. of Hydraulic, Pneumatic and Lubricating Apparatus. Via L. Manara 15, Milan. Biennial.

April. Int. Samples Fair. Ente Autonomo Fiera di Milano, Via Danodossola, Milan. Annual. (DIB 71-06-408)

May. MITAM—Int. Exbn. of Textiles for Wearing Apparel and Furnishing Fabrics. Mercato Internazionale del Tessile per l'Abbigliamento — Arredamento, Galleria S. Babila 4/d, Milan. Semiannual.

May. SASMIL—Int. Show of Semi-Finished Products and Accessories for the Manufacture and Finishing of Furniture, Stuffed Furniture and Wood Manufactures. Salone Internazionale dei Prodotti e dei Semilavorati del legno, Via Console Marcello 8, Milan. Biennial.

May. INTERBIMALL—Int. Show of Woodworking Machines. Salone Internazionale delle Maccine per la Lavoragione del legno, Corso Magenta 96, Milan. Biennial.

June. MIPEL—Int. Leather Goods Show. Associazione Nazionale Industriali Manifatturieri delle Pelli e del Cuoio, Via G. Leopardi 14, Milan. Semiannual.

June-July. COMIS TRICOT—Int. Knitwear Show. Organizazione Mostre Internazionali Specializzate, Piazzale Cadorna 2, Milan. Semiannual.

August-September. MICAM—Int. Show of Shoes, Leather, Machines & Allied Equipment. Salone Internazionale delle Calzature, Via Ippolito Nievo 33, Miland. Biennial.

September. MACEF—Houseware, Glassware, Pottery, Hardware and Tool Show. Associazione MACEF, Via Salferino 25, Milan. Biennial.

September. ANIE—Int. Show of Electronic Components, Measuring Instruments & Accessories. Salone Internazionale Componenti, Istrumenti di Misura Elettronica ed Accessori, Via Luciano Manara 1, Milan. Annual.

September. Int. Furnishing Exbn. Mostra Internazionale dell 'Arredamento, Villa Reale, Monza Milan. Annual.

September. Exbn. and Conv. on Sport and Recreational Buildings, Installations and Equipment. Centro Organizzazione Mostre Specializzate all 'Aperto, Viale Corsica 43, Milan. Annual.

September. Int. Furniture Exbn. Salone del Mobile Italiano, Corso Magenta 96, Milan. Annual.

September. MIAS—Int. Sporting Goods Show. Mercato Internazionale dell 'Articolo Sportivo, Viale Teodorico 19/2, Milan. Semiannual.

September. SMAU—Int. Exbn. of Office Machines and Equipment. Associazione Nazionale Commercio Macchine e Forniture per Ufficio, Piazza Belgioioso 1, Milan. Annual.

Oct. 8-15. BIMU—Int. Machine Tools Exbn. Milan Fairgrounds. Annual.

Oct. 8-15. ★PLAST—Int. Plastic & Rubber Exbn. UNIONPLAST. Via Petitti 16, Milan. Quadrennial.

October 25-31. Int. Chemistry Exbn. FAST, Via Rodolfo Morandi 2, Milan. Triennial.

October. SINCAS—Int. Camping & Sporting Goods Show. Gruppo Nazionale Fabbricanti Commercianti Campeggio Sport, Corso Porta Romana 17, Milan. Biennial.

October. SECURIT—Ind. Safety & Hygiene Equipment Show. COMIS, Piazzale Cadorna 2, Milan. Annual.

October. MAC—Industrial Chemical Processing Equipment Show. Mostra Internazionale di Apparecchiature Chimiche, Viale Tiziano 19, Milan. Annual.

October. Int. Show of Photographic & Motion Picture Equipment. ASSOTTICA, Via Brisa 3, Milan, Annual.

October. PULISAN—Exbn. & Conf. of Products and Techniques for Industrial Cleaning, Maintenance, Sanitation and Hygiene. BEPT, Via Paolo de Cannobio 2, Milan. Annual.

October-November. EXPO-CT—Int. Exbn. of Commercial and Tourism Facilities and Equipment. Associazione Nazionale Commercianti, Piazzo Belgioioso 1, Milan. Annual.

Nov. 15-19. ANTINQUINAMENTO—Int. Air & Water Pollution Exbn. Milan. Annual.

November. MITAM—Int. Exbn. of Textiles for Wearing Apparel and Furnishing Fabrics. Mercato Internazionale del Tessile per l'Abbigliamento Arredamento, Galleria S. Babila 4/d, Milan. Semiannual.

November. Int. Exbn. of Winery and Bottling Equipment. Centro Tecnico Italiano dell 'Imbottigliamento, Largo Toscanini 1, Milan. Annual.

November. Int. Cycle and Motorcycle Exbn. Esposizione Internazionale del Ciclo e del Motociclo, Via Macchi 32, Milan. Annual.

November. BIAS—Biennial Int. Automation and Instrumentation Show. Mostra Convequo dell' Automazione e Istrumentazione, Piazzale Rodolfo Morandi 2, Milan. Biennial.

Naples

January-February. EXPOSUDHOTEL—Hotel and Allied Tourist Industry Equipment Exbn. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

January-February. SIVEL—Wine and Spirits Exbn. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

March. MOBILSUD—Furniture Show. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

May-June. SIR—Giftware Show. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

June-July. Housing Fair. Ente Autonomo, Mostra dell'Oltremare, Naples. Annual.

June-July. BIMBOSUD—Children's Toys, Furnishings, Clothing, and Food Fair. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

September. MAREMODA — Beachwear Fashion Exbn. Ente Maremoda Capri, Via Santo Aspreno 13, Naples. Annual.

October. SICAT—Stationery and Allied Products Show. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

October. OPTICA—Int. Optical Engineering and Photographic Instrumentation Exbn. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

October-November. Exbn. of Water Sports and Pleasure Boating. Ente Autonomo Mostra dell'Oltremare, Naples. Annual.

Padua

May 3-7. POLLUTION—Int. Exbn. of Techniques and Equipment Against Pollution. Ente Autonomo Fiera de Padova, Via N. Tommazeo 95, Padua. Annual.

May-June. Int. Samples Fair. Ente Autonomo Fiera di Padova, Via N. Tommaseo 59, Padua. Annual.

September. Int. Public Services Show. Ente Autonomo Fiera di Padova, Via N. Tommaseo 59, Padua. Biennial.

October. Int. Show of Material Handling and Warehousing Equipment, Plant Maintenance Equipment Containers. Ente Autonomo Fiera di Padova, Via N. Tommaseo 59, Padua. Annual.

Parma

September-October. Int. Supermarket Exbn. Ente Autonomo Mostre Internazionale delle Conserve Alimentari, Parma. Annual.

September-October. Int. Exbn. of Preserved Food, Preserved Food Industries, Packaging and Industrial Equipment. Ente Autonomo Mostre Internazionale delle Conserve Alimentari, Parmi. Annual.

Reggio Calabria

February-March. Citrus Fair. Azienda Autonomo Fiera di Reggio Calabria, Reggio Calabria. Annual.

Rome

March-April. XIX Electronic, Nuclear, Television, Radio, and Motion Picture Exbn. Via Crescenzio 9, Rome. Annual.

Trieste

June. Int. Samples Fair. Ente Autonomo Fiera di Trieste, Viale Ippodromo 18, Trieste. Annual.

June. Int. Lumber Exbn. Ente Autonomo Fiera di Trieste, Viale Ippodromo 18, Trieste. Annual.

Turin

February. SAMIA — Int. Ready-Made Clothing Show. Salone Mercato Internazionale dell'Abbigliamento, Corso Massimo d'Azeglio 74, Turin. Semiannual.

April. MODASELEZIONE—Selected Fashions, Luxury Ready-to-Wear Show. Salone Mercato dell'Abbigliamento Moda Selezione, Corso Massimo d'Azeglio 74, Turin. Semiannual.

June. Int. Aircraft and Aerospace Exbn. Salone Internazionale dell'Aeronautica, Corso Massimo d'Azeglio 15, Turin. Biennial. (DIB 70-09-400)

September. SAMIA—International Ready-Made Clothing Show. Salone Mercato dell'Abbigliamento, Corso Massimo d'Azeglio 74, Turin. Semiannual.

September-October. Int. Technical Show. Salone Internazionale della Tecnica, Corso Massimo d'Azeglio 15, Turin. Biennial.

October-November. MODASELEZIONE—Selected Fashions, Luxury Ready-to-Wear Show. Salone Mercato dell'Abbigliamento Moda Selezione, Corso Massimo d'Azeglio 74, Turin. Semiannual. (DIB-07-412)

November. Int. Auto Show. Salone Internazionale dell'Automobili, Corso Galileo Ferrario 61, Turin. Annual. (DIB 71-01-407)

Verona

February. SA MO TER—Int. Earth Moving and Building Machinery Exbn. Ente Autonomo Fiera di Verona, Casella Portale #199, Verona. Annual.

March. Int. Agriculture, Livestock and Agricultural Machinery Fair. Ente Autonomo Fiera di Verona, Casella Portale 199, Verona. Annual.

September. Int. Marble and Marble Working Machinery Exbn. Comune di S. Ambrogio, Valpolicella, Verona. Annual.

Ivory Coast

Autumn 1973. 1st International Fair of Abidjan. Chamber of Industry of Ivory Coast, 11 Ave. Lamblin, BP 1758 Abidjan.

Jamaica

Denbigh

August. 77th Denbigh Agricultural Show. Secretary, Jamaica Agricultural Society, 10 North Parade, P.O. Box 609, Kingston. Annual.

NOTE: List concludes in next issue.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-924, Washington, D.C. 20230, or from any Commerce Field Office.

SPAIN—The Ministry of Industry recently published an order establishing **two industrial parks in the province of Caceres,** in western Spain bordering Portugal. One park is being created near the city of Caceres (the provincial capital) and will have a total of 1,250,000 square meters of urbanized land, divided into 150 lots. The other park will be near the second largest city of the province, Plasencia, and have 783,300 square meters of land divided into 68 lots.

High and low voltage electricity, adequate water supply and sewage facilities, road and rail transportation are available in both areas. The new parks will be open to a broad range of industries, including but not limited to food, textiles, shoes, and metals. Among the fiscal and other incentives to be granted Spanish and/or foreign companies establishing in the parks are (1) preferential treatment for obtaining low-interest Government credits; (2) forced expropriation, if necessary, of the land required for the plants; and (3) a 95% reduction in a variety of licensing, transfer and income taxes as well as import duties on plant equipment.

For further information write to Excmo. Sr. Gobernador Civil, Gobierno Civil, Caceres, Spain.

Spain also provides opportunities for U.S. direct investment under the provisional Third Social and Economic Development Plan, for 1972-75, where over **70 public works projects and 49 private investment projects** have been listed along with the planned expenditures for each sector. The projects cover such fields as housing and other construction, agriculture, tourism, transportation, chemicals, mining and metallurgy, environmental control, telecommunications, food processing, and textiles. The final plan was due to be published prior to January. For further information write to Sr. Lopez Rodo, Minister of Planning, Madrid.

UNITED KINGDOM—Kingston-upon-Hull, located on the east coast of England midway between London and Edinburgh, offers **development opportunities.** Among its advantages are ready accessibility by road, rail and inland waterway transport; a major east-west motorway to Liverpool, a new bridge crossing the Humber River; and a good-sized pool of young, unemployed labor.

Classified by the British Department of Trade and Industry as an 'Intermediate Area,' Hull is eligible for certain government grants, loans, tax allowances and employee benefits. A number of sizable sites owned by the Local Council and the Docks Board are available for sale or lease to industries.

Printed information, including an official handbook, labor statistics, pamphlet on industrial incentives and maps, are available from the Director of Industrial Development, Guildhall, Kingston-upon-Hull, Yorkshire, HU1, 2AA, England.

0919—ICELAND—Firm seeks joint venture for harvesting and processing **seaweed for alginate production, animal fodder and human consumption.** Variety of seaweeds abundant and geothermal water resources for processing. Firm prepared to advance capital and seeks partner to contribute capital. Research study available. For further details write Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. WTD. P-71723

2030—TRINIDAD—Food processor seeks technical assistance for expanding production into **canning and processing of fruits, vegetables, soups, jams, condiments and other items.** In exchange for such assistance, firm offers royalty payments with an equity interest open to negotiation. Firm and associates are well known and enjoy large volume of business. Contact Anthony N. Sabga, Farmhouse Industries Ltd., 48 Henry St., P.O. Box 343, Port of Spain, Trinidad, West Indies. P-71718

2052, 2071—SUDAN—Firm seeks joint venture to manufacture **candies and biscuits.** Foreign partner would share in capital requirements for machinery and equipment. Most raw materials available locally including power, water and transportation. Firm to operate with government tax and investment privileges. Total cost estimated at $600,000 with local firm providing land, building and capital. Sales to cover all of Sudan. Syd. Hamad Abdel Rahman Hamad, Managing Director, The National Industries Co., Ltd., P.O. Box 306, Omdurman, Sudan. WTD. P-71721

2433, 3272—FRANCE—Firm specializing in home construction seeks licensing agreements to develop and modernize its construction methods, technical know-how and equipment to make **wall sections, wooden framework, and foundations.** Established in 1965, firm has 56 employees. Write: Andre Beau, Ets. Beau S. A., 112 rue Jean Mermoz, 33 Eysines, France. WTD. P-71725

2818—KOREA—Joint venture partners sought for establishment of four chemical plants under Third Five-Year Economic Development Plan. Facilities would produce **polyethylene, styrene monomer, ethylene glycol and dimethyl terephthalate.** Deadline for submitting proposals is June 30, 1972. Write: Kim Hi Sul, Chief, Petro-chemical Division, First Industry Bureau, Ministry of Commerce and Industry, Seoul. P-71719

2821 — UNITED KINGDOM — Nation's second largest resin producer seeks licenses for specialized new synthetic **resins for paints, printing inks, adhesives, reinforced plastic moldings, rigid foams and paper coatings.** Firm also willing to offer licenses in the same areas to American companies. Maintains agents in most countries and a manufacturing facility in South Africa. Employs 309; annual sales $51 million. Cray Valley Products Ltd. (A. G. North, Joint Man. Dir.), Cray Ave., St. Mary Cray, Orpington, Kent BR5 3PP, England. WTD. P-71716

3297—GERMANY—Manufacturer of **refractories and chemicals** for iron and steel foundries and mills seeks licenses to make related products. Established in 1905, firm employs around 600. Gebr. Luengen KG, 50 Bahnstrasse, 4006 Erkrath Bez. Duesseldorf. WTD. P-71727

3551 — NETHERLANDS — Licenses to manufacture **freezing tunnels for the food processing industry.** Firm currently produces dairy plant machinery, conveying equipment for food and beverage industries, canning and bottling machinery. Is subsidiary of major Dutch company. Contact J. Greene, Stork-Amsterdam N.V., 198 Sportlaan, Amstelveen. WTD. P-71726

3551 — NETHERLANDS — Diversified equipment manufacturer seeks licenses to make machinery complementary to its present line. Products include **machinery for processing potato starch, derivatives, and tapioca flour; centrifuges, pumps, sieves and rotary vacuum filters.** Interested in obtaining new processes and equipment for food industry. Firm markets its products in EEC, Far East, Eastern Europe and South America. Employs 90; has land available for expansion. To obtain further information in confidence write Dr. K. Zijlstra, Committee for Industrial Development of the Province of Groningen, 65 Turfsingel, Groningen. P-71713

3553—NETHERLANDS—Company seeks license to manufacture and market **woodworking and related machinery.** Firm specializing in production of woodworking equipment, seeks to diversify. Company employs 80, sells its products in Europe, Scandinavia and the United States. Will also consider other machinery items. To obtain further information in confidence write Dr. H. Verschoor, Committee for Industrial Development, The Province of Groningen, 65 Turfsingel, Groningen. P-71714

3585 — NETHERLANDS — License to manufacture **domestic and commercial air conditioning equipment.** Will also con-

sider agency representation. Write T. Kelderman, Machinefabriek De Bruijn N. V., 70 Oldenzaalsestraat, P.O. Box 92, Enschede. WTD. P-71717

3599—CANADA—Licenses to manufacture **complete units, components or subassemblies produced in general machine shops.** The firm's divisions are presently engaged in industrial hard chrome plating; custom machining of precision parts and lead screws; production of precision engraved applicator rolls for packaging and converting industries; and distribution of plumbing and heating supplies. Company has about 105 employees; licensing agreements with two American concerns. Write: C. K. Zenwirt, NEO Group of Companies, 76 Mead Ave., P.O. Box 3186, Station "C," Ontario. WTD. P-71720

3622, 3679—CANADA — Licensing and contract manufacturing arrangements sought by experienced producer to make **electronic, electrical and pneumatic control panels; cabinets and consoles; custom or high volume electronic devices; printed circuit boards and sub-assemblies.** Firm has complete design and manufacturing facilities for these products and holds licenses for manufacture of particle size analyzers, automatic permeabilimeters, ultrasonic level measuring equipment and flowmeters. Established in 1954, company employs around 70, including 6 salesmen, and is one of 13 subsidiaries of major holding and operating firm with operations in such fields as metal forming, fabricating and engineering, electronics and railroad supplies. Plant visits by representatives of interested U.S. firms welcomed. Write: David D. Casey, Plant Superintendent, Milltronics Ltd., 730 The Kingsway, Peterborough, Ontario. WTD. P-71724

3622, 3822—NETHERLANDS — Subsidiary of large conglomerate seeks manufacturing licenses and subcontracting agreements to produce **temperature control equipment, power sequencing components used in chemical tracing and actuators using larger than fractional horsepower drives.** Firm experienced in design of load sharing and load sensing installations for power generation and equipped to produce complete custom built switchboards, relay panels, control centers, and automated and remote control units for industrial and marine application. Write: Herman G. Eekels, Director, Herman G. Eekels N.V., Hoogezand. WTD. P-71728

Licensing In U.S.

For additional information on opportunities to manufacture foreign firm's products in the U.S., write Commerce's Office of International Investment, BIC-874, Bureau of International Commerce, Department of Commerce, Washington, D.C. 20230, telephone Area Code 202-967-2248, referring to the appropriate FILE number assigned each opportunity listed below.

UNITED KINGDOM — An established English manufacturer of **bottle filling, closing, labeling and conveying machines** is interested in having its products manufactured under license in the U.S. by an American company. **File 2125**

GERMANY — A company presently manufacturing integrating meters, gas meters for household and industry use, oil meters, gas pressure controls and pressure indicators wishes to license an American company to manufacture their **oil meters for fuel and diesel oil.** The company has been granted several patents for its meters and reportedly has sold them with success in Germany and abroad. **File 2126**

NETHERLANDS—A Dutch manufacturer of farm machinery, already exporting 80% of their products to 60 countries, wishes to license the manufacturing of their line of **rotary-drum mowers and haymaking machinery.** The mowers have a cutting speed up to 8 m.p.h., no blockages, no blade sharpening and a perfect loosely-laid swath. The haymaking machinery combines raking, tedding, windrowing, spreading and swath turning operations. Currently the firm operates five plants in the Netherlands. **File 2127**

NETHERLANDS—Firm manufacturing plastic tubes and pipes for gas, electricity, water, drainage, sewage, irrigation and hothouse watering systems offers a license to manufacture their potential **locked-ring jointing system for plastic pipes.** These jointing systems are used in gas and water supply systems and in almost every industrial sector. The system is claimed to be superior to other rubber ring jointing systems in that the rubber sealing ring is locked firmly in the socket by a plastic retaining ring and cannot be dislodged during the joining operation. **File 2128**

SWITZERLAND—A Swiss distributor of machine tools offers the manufacturing license of their patented **linear actuator.** It actuates or locks switches, power transmission plants, turn tables, elevators, and operates grippers, rail switches, signals and doors, opens flags, controlling valves and performs many other operations. The specifications show a thrust up to 9,000 lb., stroke maximum 160" and speed 21" per second. **File 2129**

SWITZERLAND—Firm offers a license for its **car parking system** consisting of a steel or reinforced concrete construction divided into parking cubicles in which automobiles are parked through a controlled elevating system. Presently the system is in use in Italy, United Kingdom, Belgium, Ireland, Switzerland and South Africa. It is claimed the system does not present the problems encountered with similar U.S. elevating systems. **File 2130**

SWITZERLAND—An established Swiss company offers a newly developed piece of gymnastic equipment that combines a great number of exercises for manufacturing under license in the U.S. The equipment is very light, the form and size of an automobile wheel and made entirely of plastic. **File 2131**

Visiting Buyers And Officials

PAKISTAN — Sheikh Rehmat Ullah Javed, representing (1) Grand Batteries (Pakistan) Ltd., Industrial Estate, Multan Rd., Lahore and (2) Multi Traders, 22 McLeod Rd., Lahore, interested in agencies from suppliers of **metals, lead, antimony, copper, lighterage, locomotive spares, roller and ball bearings** and in meeting U.S. firms interested in his **joint venture proposal for manufacture of lead oxide** (*Commerce Today*, Sept. 6, p. 58). Jan. 15 via New York for one month, c/o R. L. Elkind, Senior Vice President, Singer Products Co., 30 Church St., New York, N.Y. 10007. Itinerary: New York, Boston, Texas City, Texas. WTD (1) 8/71, (2) 10/71.

Other Foreign Official Tenders

LIBYA—The Secretary of the Central Tender Board has issued tender No. 1397 for the **supply and installation of an instrument landing system.** Bid deadline is Jan. 31. Copies of tender announcement and specifications are available only from the Civil Aviation and Meteorological Dept., Shara Essaidi, Tripoli, Libyan Arab Republic for $75 per copy.

LIBYA—The Secretary of the Central Tender Board has issued tender No. 1398 for the **supply of navaids, communications equipment and multichannel recorders.** Bid deadline is Jan. 31. Copies of tender announcement and specifications are available only from the Civil Aviation and Meteorological Dept., Shara Essaidi, Tripoli, Libyan Arab Republic for $75 per copy.

NATO To Build Aircraft Parking Apron In Italy

Under the commonly-funded NATO Infrastructure Program, a combined accelerated international call for bids is planned for an aircraft parking apron (87,000 square meters) and related facilities in Italy, including taxiways (26,711 square meters), wash rack, storm drainage (8,000 meters in length), and lighting and electrical distribution (4,200 meters in length). Construction costs for these facilities are estimated at $3.5 million. Firms interested in this opportunity are requested to notify (by Jan. 12) the Construction, Water Resources, and Engineering Division, BDC-742, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-3602).

Bidders Can Prequalify For Philippine Rice Project

The Development Bank of the Philippines has issued an invitation to experienced contractors to prequalify for the construction, supply and installation of thirty 2,000-metric-ton **rice storage facilities,** six 5,000-metric-ton rice storage facilities and auxiliary drying and milling equipment, including the modernization of thirty existing facilities. The cost of this undertaking is estimated at approximately $19 million. There will be World Bank financing. Tenders will be solicited only from prequalified contractors.

Directives and forms describing prequalification procedures and requirements are available from the offices of the Grain Processing Unit, Development Bank of the Philippines, Makati Commercial Center, P.O. Box 800, Makati, Rizal. Completed prequalification documents must be returned no later than Jan. 31.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Business Opportunities Staff and other units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-924, Washington, D.C. 20230.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Dairy products

20234—JAMAICA—Soft ice cream mix in powder or liquid form in commercial quantities to supply one Sweden soft ice cream machine. Westgate Pharmacy, Dr. A. W. Eldemire (retailer), 3 Orange St., Montego Bay. WTD in prep.

Broad woven fabric mills, cotton

22119—GERMANY—Terry cloth towels of medium and high quality, normal size and oversize. Dr. Lennartz Import/Export, Attn: Dr. Lennartz (importer, dist.), 51 Aachen, Postfach 966. WTD 11/71.

Textile goods

22940 — GERMANY — Flock, polyamide and polypropylene, new stock, waste or reclaimed fiber. Findeisen & Weber (importer, dist., mfr.), 53 Bulacher Strasse, D-7505 Ettlingen, Baden. WTD 12/71.

22982—JAMAICA—Candle wicks, 20,000 six-inch candle wicks and wick bases required per annum. Quotations: c.i.f. Montego Bay. Jamaica Candle and Equipment Supply Ltd., Contact Manager: Owen Rutherford (mfr.), 37 Gloucester Ave., P.O. Box 260, Montego Bay. WTD in prep.

Men's, boys' furnishings

23292—NETHERLANDS—Young men's sportswear. Exclusive representations for The Netherlands requested. Fashion Team, (importer, dist., agent), Singel 64, Amsterdam. WTD 12/71.

Women's, misses', juniors' outerwear

23393—NETHERLANDS—Young ladies' sportswear and leisure wear. Exclusive representations for The Netherlands requested. Fashion Team, (importer, dist., agent), Singel 64, Amsterdam. WTD 12/71.

Fabricated textile products

23970 — PORTUGAL — Schiffli machine embroideries for application on men's shirts, ladies garments. Filusa, Confecçoes Texteis S.A.R.L. (mfr.), Ave. Dr. Carlos Pinto Ferreira, Caxinas, Vila do Conde. WTD in prep.

Logging camps, contractors

24110 — THAILAND — Pulp, bleached softwood and hardwood, 20,000-30,000 tons. Requests samples, c.i.f. Bangkok prices. Seng Fah Ltd. Part. (importer, mfr.), 445/1-2 Mahachai Rd., Bangkok 2. WTD 10/71.

Sawmills, planing mills

24262—NETHERLANDS—Cherry rough lumber, air dried and kiln dried, 4/4", 5/4", 6/4", 8/4" and 12/4" FAS; hickory handles. Eibergse Houtindustrie N.V., Attn: D. W. Westhof (importer, dist.), Kiefteweg 1, P.O. Box 17, Eibergen. WTD 12/71.

Office furniture

25221—SWITZERLAND — Upholstered metal office chairs, all kinds, anti static chairs for computer rooms. Exclusive sales rights for Switzerland requested. Jorimann AG (importer, dist.), Obere Wiltisgasse 31, 8700 Kusnacht ZH. WTD 12/71.

Converted paper, paperboard items

26415—JAMAICA — Approx. 28,000 sheets, size 3'2" by 4', waterproof paper or plastic construction suitable for transporting banana stems without damage to the bananas. Sheets will be rolled about the banana stems and loaded in tiers of 7 to 8 rolls deep. A laminate consisting of a strong pliable material bonded to soft foam seems indicated. Banana Board, Research & Development Dept. (importer, exporter, statutory government body), P.O. Box 602, Kingston.

Industrial chemicals

28152—SWITZERLAND—Dry colorants, color concentrates for thermoplastic materials. René Wirth (mfr.), Hohlstr. 610, P.O. Box 125, 8048 Zürich. WTD 12/71.

Synthetic materials

28213—INDIA—Vinyl acetate monomer for manufacture of polyvinyl chloride. Cellulose Products of India Ltd. (mfr.), P.O. Kathwada Maize Products, Kathwada, District Ahmedabad, Gujarat. WTD 12/71.

28213 — PORTUGAL — Copolymer and polyamide resins, thermoplastic. A Flor Do Ave, Fabrica de Tecidos (mfr.), Caldas das Taipas. WTD in prep.

28213—SWITZERLAND — Granulated polyethylene resins, thermoplastic. René Wirth (mfr.), Hohlstr. 610, P.O.B. 125, 8048 Zurich. WTD 12/71.

Drugs

28311—ZAMBIA—Supply and delivery of 1500 units of dried blood plasma complete with diluent and transfer kit. Manufacturers to quote prices via C.I.F. Lusaka. Product should have a shelf-life of at least two years and should be storable at normal tropical temperatures. Les McLean Ltd. (importer, dist.), P.O. Box 492, Ndola. WTD 4/71.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28430 — PORTUGAL — Surface active agents; emulsifiers, penetrants and wetting agents. A Flor Do Ave, Fabrica de Tecidos (mfr.), Caldas das Taipas. WTD in prep.

Chemical products

28993 — SWITZERLAND — Soldering fluxes, compounds, aerosol electric contact sprays, new chemical specialties for electronic assembly. Adola AG (importer, dist.), Etzelstr. 3, 8800 Thalwil. WTD 12/71.

Petroleum refining

29110—JAMAICA—Candle wax, either in 55 lb. pallet form or small drum containers; approx. 30,000 lbs. of high quality candle wax required per annum. Technical literature welcomed. Quotations: c.i.f. Montego Bay. Jamaica Candle and Equipment Supply Ltd., Contact Manager: Owen Rutherford (mfr.), 37 Gloucester Ave., P.O. Box 260, Montego Bay. WTD in prep.

Leather goods

31990—CANADA—Cattle show halters, black leather, round strap. Arnold Nasco Ltd. (importer, dist., retailer), 58 Dawson Rd., Guelph, Ontario.

Glass products

32316—JAMAICA—Glass globes, known as "low boy" candle containers; quantity: 24,000 per annum in various designs for hotel use. Quotations: c.i.f. Montego Bay. Jamaica Candle and Equipment Supply Ltd., Contact Manager: Owen Rutherford (mfr.), 37 Gloucester Ave., P.O. Box 260, Montego Bay. WTD in prep.

Steel mill products

33152—NETHERLANDS—Nails, staples, similar products. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

33155 — NETHERLANDS — Steel wire. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

Rolling, drawing, extruding of nonferrous metals

● 33500—INDIA—Supply of 800 kms. composite cable containing 4 coaxial core of type 375 with accessories and 1,500 kms. composite cable containing 4 coaxial core of type 174 with accessories. Tender No. ES-9/202/39/098/cell —I 206. Bid deadline Jan. 28. Contact Director General of Supplies and Disposals, N.I. Building, Parliament St., New Delhi.

Hand tools, general hardware

34232—NETHERLANDS—Handtools for do-it-self hobbies and general domestic use. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

34233—NETHERLANDS—Garden tools. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

34295—NETHERLANDS—Hardware for sale in retail stores. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

Screw machine products

34521—GUADELOUPE—Bolts in assorted American sizes not available in France, 2 semi-annual orders totalling approximate $5000. Correspondence requested in French. Socomeco (importer, dist.), Zone Industrielle, Pointe Jarry, Pointe-A-Pitre, Guadeloupe. WTD 5/71.

34521 — NETHERLANDS — Bolts, nuts and screws. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

Metal stampings

34611 — NETHERLANDS — Household cooking and kitchen utensils. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

Fabricated wire products

34816—NETHERLANDS—Fencing and allied products. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

Fabricated metal products

34942—PORTUGAL—Pneumatic and hydraulic valves for power transfer. Fapobol Continental, Fabrica de Pneus, Attn: Guilherme de Oliveira Sa (mfr.), Sto. Tirso. WTD in prep.

Special Action

Each of the following trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

34336—ISRAEL—Direct purchase of municipal incinerator plants, complete units, for disposal of municipal waste; capacity: large units for between 700 to 1,000 tons per day, small units for between 100 to 300 tons per day. Israel Dano Corp. Ltd. (importer, dist., consulting/planning/promoting of building projects, mainly plants), 1 Palmer Gate, P.O. Box 19, Haifa. Cable address: Glomit Haifa. WTD in prep.

35512—SUDAN—Direct purchase of machinery & equipment for producing candies and biscuits. Estimated annual production 6000 tons. A complete line of equipment is required for establishment of a candy/biscuit factory. The National Industries Co. Ltd. (mfr.), Light Industrial Area, P.O. Box 306, Omdurman. WTD in prep.

35857—SWITZERLAND — Direct purchase of refrigeration, cooling systems for built-in household refrigerators as well as combination refrigerator freezers of 6.4 cubic feet and less. Components, parts for refrigerators with special compartments to maintain humidity for vegetables, cakes, etc. ("Humidrawer"). Parts for ice cube maker installations, pushbutton ice water dispensers. Components parts for commercial refrigerators, freezers, display cases, mechanical beverage-cooling, dispensing equipment, bulk tank storage coolers, environmental control equipment, laboratory, industrial refrigerators, other components. Therma AG (dist., mfr.), Wilfriedstr 6, Attn: Heinz Muller, Marketing Mgr., 8032 Zurich. WTD 12/71.

38213—SWITZERLAND — Direct purchase of destructive and nondestructive materials testing equipment for all kinds of materials, primarily metals, plastics, rubber, textiles. For testing laboratories as well as R&D Departments of large industrials. Exclusive sales rights for Switzerland requested. Prufmaschinen AG (importer, dist.), Wachtelstrasse 27, 8038 Zurich. WTD 11/71.

Metalworking machinery

35414—PORTUGAL—Polishing, buffing machines. Indufer, Industria Portuguesa de Ferramentas S.A.R.L. (importer, mfr.), P.O. Box #24, Senhora da Hora. WTD in prep.

35442 — SWITZERLAND — Industrial molds for injection molding of plastic consumer goods, industrial components, novelty plastic products. René Wirth (mfr.), Hohlstr. 610, P.O.B. 125, 8048 Zürich. WTD 12/71.

35452—ITALY—Calipers and gauges for precision machine tools. Vanadium Utensili S.p.A. (importer, mfr., agent), Km 8 S.S. Moncalieri-Villastellone, 10024 Moncalieri (Torino). WTD in prep.

35482—SWITZERLAND—Electric, pneumatic cable stripping machines. Exclusive sales rights for Switzerland requested. Adola AG (importer, dist.), Etzelstr. 3, 8800 Thalwil. WTD 12/71.

35483—SWITZERLAND—Soldering machines. Exclusive sales rights for Switzerland requested. Adola AG (importer, dist.), Etzelstr. 3, 8800 Thalwil. WTD 12/71.

Special industry machinery

35521 — PORTUGAL — Embroidery machines. Schiffli machine type. Filusa, Confecçoes Texteis S.A.R.L. (mfr.), Ave. Dr. Carlos Pinto Ferreira, Caxinas, Vila do Conde. WTD in prep.

35521—PORTUGAL—Cloth bonding machinery, infra-red, points or fuse flex systems. J. Fernandes Dias & Filhos Lda. (mfr.), Ameal, Olival, Vila Nova de Gaia. WTD in prep.

35521—PORTUGAL—Dying machinery for passmenteries. Idepa, Industrias de Passamanarias Lda. (mfr.), Avenida Americo Tomas, S. Joao da Madeira. WTD in prep.

General industrial machinery

● 35600—COLOMBIA — Manufacturing and supply of oil purifying equipment and accessories, for its power substations. No tender number specified; bid deadline Jan. 28. Empresas Publicas de Medellin, Seccion de Importaciones, Edificio Miguel de Aguinaga No. 607, Medellin. Terms and specifications may be obtained from issuing authority at 100 pesos per copy ($1 = about 21 pesos).

● 35600—COLOMBIA — Design, manufacture and supply of three centrifugal pumps for a total capacity altogether of 400 Lts/seg., three power motors to operate above pumps, eight gate valves, three check valves, one set of piping for suction and impulsion in pumping station, one control panel, and one transformer of 1,230 KVA. No tender number specified; bid deadline Jan. 27. Empresas Publicas de Medellin, Seccion de Importaciones, Edificio Miguel de Aguinaga No. 607, Medellin. Bid documents can be purchased for 150 Colombian pesos ($1 =about 21 pesos), per set from the imports section of Empresas Publicas de Medellin.

● 35600 — INDONESIA — 46 water pumps, 47 tailgate spreaders, 47 industrial tractors and attachments, 23 fork lift trucks, 200 rotary scythe grass cutters, 13 diesel generating sets, 13 crushing and screening plants, 38 metered fuel dispensing pumps, and various small tools. Tender No. 7/BM/IDA; bid deadline Feb. 4. Directorate General of Highways, Dept. of Public Works and Power, DJL. Pattimura 7, Kebajoran Baru, Djakarta. Copies of tender documents available from the above address or, when received, from the General Industries Div., BDC-772, U.S. Department of Commerce, Washington, D.C. 20230. ★(202-967-4317).

35614 — NETHERLANDS — High pressure, 500-600 atmospheres, pumps, compressors for cleaning purposes. Koster & van Batenburg N.V., Attn: P. H. Hilbrand (importer, dist.), Oosterweezenstraat 3, Alkmaar. WTD in prep.

Service industry machines

35854 — SWITZERLAND — Refrigeration, cooling compressors for household refrigerators, commercial, industrial refrigerators and freezers, air-conditioning

systems. Therma AG (dist., mfr.), Wilfriedstr. 6, Attn: Heinz Muller, Marketing Mgr., 8032 Zurich. WTD 12/71.

35892 — NETHERLANDS — Sandblasting equipment and high pressure cleaning equipment. Koster & van Batenburg N.V., Attn: P. H. Hilbrand (importer, dist.), Oosterweezenstraat 3, Alkmaar. WTD in prep.

Electric transmission, distribution

● 36100—HONDURAS—Supply relays: protector, line protection, transformer protection, and load protection. Partial or incomplete orders will not be considered. Tender No. C, bid deadline Feb. 17. Empresa Nacional de Energia Electrica, ENEE, Apartado No. 99, Tegucigalpa, D.C. Tender is under Section C of the IV Electrification Project of ENEE, financed by World Bank and IDA funds. Contractual documents available for $20 each from ENEE. Equipment must originate from World Bank member countries and/or Switzerland.

● 36100—HONDURAS—Supply, transport, and complete installation of nine (9) sub-stations, new, 138/69/34.5/13.8 kv. and extension of four (4) existing sub-stations of 138/69/34.5/13.8 kv., including execution of civil works and supply of all required equipment, except that indicated in Sections A, B, and C of contractual documents. Tender D, bid deadline Feb. 17. Empresa Nacional de Energia Electrica (ENEE). Apartado No. 99, Tegucigalpa, D.C. Contractual documents are available at $50 per copy from ENEE. The tender is Section D of the IV Electrification Project of ENEE, financed with World Bank and IDA funds. Equipment should originate from World Bank member countries or Switzerland.

● 36100—INDIA—Supply of testing instruments, including impulse generator; impulse ratio measuring instrument; variable balancing network; capacitance unbalance measuring set etc.; Tender No. 162-53/71TPL (CP), bid deadline Jan. 28. Invited by the Deputy Chief Engineer (CP), Posts and Telegraphs, Parliament St., New Delhi. Tender documents available at $2.50 each from the India Supply Mission, 2536 Massachusetts Ave., NW., Washington, D.C. 20008.

● 36100—INDIA — Supply of selective level meters, oscillators, attenuators, pilot senders and receivers. Tender No. 162.54/71 TPL (CP), bid deadline Feb. 8. Invited by the Assistant Chief Engineer (CP), Posts and Telegraphs, Parliament St., New Delhi. Tender documents available, at $2.50 each, from the India Supply Mission, 2536 Massachusetts Ave., NW., Washington, D.C. 20008.

● 36100—TRINIDAD AND TOBAGO—Supply following equipment for indicated tenders: 33 kv. Metal-clad oil circuit breaker (Tender 2349); Bolts eye galv. § x 10" (2352); 33 kv. 3-phase insulating switch (2353); 33 kv. .5 single core sealing ends (2354); and pike poles 18' (2355). Bid deadline for all is Jan. 25. Purchasing Officer, Trinidad and Tobago Electricity Comm., 63 Frederick St., Port of Spain. Specifications available on a short-term loan basis to firms domiciled in the U.S. from Power and Electrical Equipment Program, BDC-776, U.S. Dept. of Commerce, Washington, D.C. 20230. ★(202-967-5585). Imports of Electricity Commission are exempt from duties, consequently U.S. products are not penalized by Trinidad's Preferential Tariff System.

Household appliances

36343—NETHERLANDS—Small household electric appliances. H. J. Reesink & Co. N.V., Attn: B. Verkes (importer, dist., agent), 7 Havenstraat, Zutphen. WTD in prep.

Communication equipment

36626 — SWITZERLAND — Ultrasonic, non-destructive testing machines. Exclusive sales rights for Switzerland requested. Prufmaschinen AG, (importer, dist.), Wachtelstrasse 27, 8038 Zurich. WTD 11/71.

Electronic components, accessories

36740—SWITZERLAND—Thyristors, integrated circuits. Exclusive sales rights for Switzerland requested. Adola AG (importer, dist.), Etzelstr. 3, 8800 Thalwil. WTD 12/71.

Electrical machinery supplies

● 36900—THAILAND—Supply following lead acid and alkaline storage batteries and charges: (a) All lead acid and 60 cell: two at 40 AH, nine at 60 AH; three at 80 AH; three at 250 AH; and constant battery chargers rate 5A (eleven), 9A (three), and 20A (six). (b) Alternatively, the alkaline types all 92 cells: two at 40 AH; nine at 60 AH; three at 80 AH; three at 250 AH; and constant voltage battery chargers rated 5A (eleven), 9A (three) and 20A (six). Tender No. A 013, bid deadline Jan. 24. Documents available at $25 per copy, from Foreign Purchasing Sect., Procurement Division, Supply and Procurement Dept., Electricity Generating Authority of Thailand. Only firms located in Asian Development Bank member nations are eligible to bid.

Engineering, laboratory instruments

● 38100—BURMA—Supply of drafting instruments including scales, rulers, protractors, stencils, compasses, and many more. Tender No. 6 (T) MCY/IRR/71-72, bid deadline Jan. 31. Invited by the Chief Engineer, Irrigation Dept., 9/21 Strand Rd., Rangoon. Terms and specifications available on short term loan basis from the Business, Photographic and Scientific Equipment Div., BDC-708, U.S. Department of Commerce, Washington, D.C. 20230. ★(202-967-2939.)

38112—NETHERLANDS — Instruments for chemical laboratories. Nenimij N.V., Attn: Miss H. Spoelstra (importer), P.O. Box 2325, The Hague. WTD in prep.

Machinery, equipment & supplies

50810 — GERMANY — Office computers, peripheral equipment, second-hand only, for leasing purposes. Promodata GmbH. (leasing co.), 6000 Frankfurt/Main, Rathenauplatz la. WTD 12/71.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Broad woven fabric mills, cotton

22116—PORTUGAL—Corduroys, velvets and velveteen, cotton. Fragosa Lda., J. Paiva (importer, agent), Rua do Arsenal 148-3° Sala F&G, Lisbon. WTD in prep.

22116—PORTUGAL—Corduroy fabrics, velvets and velveteen. Jamoral Lda., Sociedade Importadora (importer, dist., agent), Rua Jose Falcao 158, Oporto. WTD in prep.

22117—PORTUGAL—Velvets, printed. Jamoral Lda., Sociedade Importadora (importer, dist., agent), Rua Jose Falcao 158, Oporto. WTD in prep.

22117—PORTUGAL—Velvets, printed. Protel, Produtos e Equipamentos Texteis Lda. (importer, agent), Rua Julio Dinis 911-5° Dto., Oorto. WTD in prep.

Broad woven fabric mills, manmade fiber, silk

22211 — PORTUGAL — Velvets, rayon and/or acetate, broadwoven. Jamoral Lda., Sociedade Importadora (importer, dist., agent), Rua Jose Falcao 158, Oporto. WTD in prep.

22212—PORTUGAL—Polyester fabrics, non-stretch types. Nopal (importer, agent), Avenida Antonio Domingues Santos, Senhora da Hora, Oporto. WTD in prep.

Yarn, thread mills, products

22813 — GERMANY — Carded yarn, man-made staple. Baldus, Kommanditgesellschaft, (importer, dist., mfr.), Friedrichstal, Post Niedersessmar, 5270 Gummersbach. WTD 11/71.

22813 — PORTUGAL — Fancy knitting yarns. Jamoral Lda., Sociedade Importadora (importer, dist., agent), Rua Jose Falcao 158, Oporto. WTD in prep.

22814 — GERMANY — Carded yarn, non-cellulosic. Baldus, Kommanditgesellschaft, (importer, dist., mfr.), Friedrichstal, Post Niedersessmar, 5270 Gummersbach. WTD 11/71.

22832—GERMANY—Carded yarn, wool. Baldus, Kommanditgesellschaft (importer, dist., mfr.), Friedrichstal, Post Niedersessmar, 5270 Gummersbach. WTD 11/71.

Textile goods

22951—PORTUGAL — Proxylin-coated fabrics. Campismo Lda. (importer, mfr., agent), 68 Avenida General Carmona, Luanda, Angola. WTD in prep.

22952—PORTUGAL—Vinyl coated fabrics, woven, knitted. Nopal (Importer, agent). Ave. Antonio Domingus Santos, 437, Senhora da Hora, Oporto. WTD in prep.

22952—PORTUGAL — Artificial leather. Jamoral Lda., Sociedade Importadora (importer, dist., agent), Rua de Jose Falcao 158, Oporto. WTD in prep.

22952—PORTUGAL—Resin coated fabrics. Campismo Lda. (importer, mfr., agent), 68 Avenida General Carmona, Luanda, Angola. WTD in prep.

22952—PORTUGAL—Artificial leather. Fragoso Lda., J. Paiva (importer,

agent), Rua do Arsenal 148-3° Sala F & G, Lisbon. WTD in prep.

22952—PORTUGAL — Artificial leather. Pereira Filhos Lda., Francisco Carlos (importer, agent), Gaiense, Oliveira do Douro, V.N. Gaia. WTD in prep.

22953—PORTUGAL — Impregnated and coated fabrics. Campismo Lda. (importer, mfr., agent), 68 Avenida General Carmona, Luanda, Angola, WTD in prep.

Men's, youths', boys' suits

23111—BAHAMAS—Men's suits. Maximus International., (dist., agent), P.O. Box 2071, Freeport, Grand Bahama. WTD 12/71.

Men's, boys', shirts, trousers

23290—BAHAMAS—Men's shirts and slack suits. Maximus International (dist., agent), P.O. Box 2071, Freeport, Grand Bahama. WTD 12/71.

23270—BAHAMAS — Men's trousers. Maximus International (dist., agent), P.O. Box 2071, Freeport, Grand Bahama. WTD 12/71.

Women's, children's, undergarments

23410 — BAHAMAS — Women's underwear. Maximus International (dist., agent), P.O. Box 2071, Freeport, Grand Bahama. WTD 12/71.

Fabricated textile products

23920 — PORTUGAL — Foam rubber, bonded; for press padding, press machines and press tables. Jamoral Lda., Sociedade Importadora (importer, dist., agent), Rua Jose Falcao 158, Oporto. WTD in prep.

Converted paper, paperboard items

26414—PORTUGAL — Labels, pressure, sensitive. Ipex (importer, agent), 218 Rua Capitao Pombeiro, Oporto. WTD in prep.

General commercial printing

27519 — FRANCE — Decalcomanias and pressure sensitives to be used apparently for identification and marking purposes when they will be exposed to weather, such as on sides of railroad freight cars. France Applications S.A. (mfr.), Z.I. "La Prairie," 91–Villebon s/Yvette. WTD 7/70.

27519 — PORTUGAL — Labels, screen process of decal labels. Ipex (importer, agent), 218 Rua Capitao Pombeiro, Oporto. WTD in prep.

Industrial chemicals

28122 — FRANCE — Sodium carbonate. Carbonaphta (importer, dist., agent), 75 d'Amsterdam, 75–Paris 8. WTD in prep.

28123—FRANCE—Caustic soda. Carbonaphta (importer, dist., agent), 75 rue dam, 75–Paris 8e. WTD in prep.

28124—NETHERLANDS—Alkaline industrial chemicals for use in the paint, paper, oil, plastic, chemical, textile, rubber, other industries; direct purchase or exclusive representations for the Benelux countries. N.V. Handelsvereeniging v/h J. & W. Wegman, Attn: F. H. van Dam (importer, dist., agent), 3 Staalkade, P.O. Box 3356, Amsterdam. WTD in prep.

28151 — FRANCE — Benzene, cumene, ethyl benzene, phtalic anhydride, phenol, styrene, toluene, xylenes. Carbonaphta (importer, dist., agent), 75 rue d'Amsterdam, 75—Paris 8e. WTD in prep.

28152—PORTUGAL—Dyes, cyclic, synthetic and organic. Imextil Lda. (importer, agent), Rua do Campo Alegre 298-3°, Dto., Oporto. WTD in prep.

28152—PORTUGAL—Dyes, cyclic, synthetic and organic. Focor, Forncedora de Corantes (importer, agent), 288 Rua 5 de Outubro, Oporto. WTD in prep.

28152—PORTUGAL—Synthetic organic dyes for the textile industry. Sarcol Lda., Produtos (importer, agent), 138 Rua Brito Capelo, Oporto. WTD in prep.

28153—PORTUGAL — Synthetic organic pigments, lakes and toners for the textile industry. Sarcol Lda., Produtos (importer, agent), 138 Rua Brito Capelo, Oporto. WTD in prep.

28161—NETHERLANDS—Titanium pigments for the paper, plastic and paint industries; direct purchase or exclusive representations requested for the Benelux countries. N.V. Handelsvereeniging v/h J. & W. Wegman, Attn: F. H. van Dam (importer, dist., agent), 3 Staalkade, P.O. Box 3356, Amsterdam. WTD in prep.

28162—NETHERLANDS — Other white opaque pigments than titanium, for the paper, plastic, paint, other industries; direct purchase or exclusive representations requested for The Netherlands. N.V. Handelsvereeniging v/h J. & W. Wegman, Attn: F. H. van Dam (importer, dist., agent), 3 Staalkade, P.O. Box 3356, Amsterdam. WTD in prep.

28163—PORTUGAL — Fluorescent pigments for textile use. Sarcol Lda., Produtos (importer, agent), 138 Rua Brito Capelo, Oporto. WTD in prep.

28181 — FRANCE — Acrylonitrile, diethylene glycol, glycerine, methanol, pentaerythritol, perchloroethylene, propylene glycol, vinyl acetate, vinyl chloride. Carbonaphta (importer, dist., agent), 75 rue d'Amsterdam, 75–Paris 8e. WTD in prep.

28184—INDIA—Pesticides, other organic agricultural chemicals. Sai-Chemie Int. (importer), 203 Pushpa Bhavan, Opposite Telephone Bhavan, Colaba, Bombay 5. WTD 1/71.

28185—FRANCE—Ethylene glycol, ethylene oxide, 2-ethylhexyl alcohol. Carbonaphta (importer, dist., agent), 75 rue d'Amsterdam, 75–Paris 8. WTD in prep.

Synthetic materials

28211—PORTUGAL—Vinyl and vinyl copolymers for coating of fabrics, woven, knitted, non-woven. Focor, Forncedora de Corantes (importer, agent), Rua 5 de Outubro 288, Oporto. WTD in prep.

28213—NETHERLANDS — Thermoplastic resins for the use of the paint, paper & plastics industries; exclusive representations requested for the Benelux countries; or direct purchase. N.V. Handelsvereeniging v/h J. & W. Wegman, Attn: F. H. van Dam (importer, dist., agent), 3 Staalkade, P.O. Box 3356, Amsterdam. WTD in prep.

28214—NETHERLANDS — Thermosetting resins for the paint, paper, plastics, other industries; exclusive representations requested for The Netherlands; or direct purchase. N.V. Handelsvereeniging v/h J. & W. Wegman, Attn: F. H. van Dam (importer, dist., agent), 3 Staalkade, P.O. Box 3356, Amsterdam. WTD in prep.

28220 — FRANCE — Butadiene. Carbonaphta (importer, dist., agent), 75 rue d'Amsterdam, 75–Paris 8. WTD in prep.

Drugs

28341—FRANCE—Pharmaceutical products in bulk. Carbonaphta (importer, dist., agent), 75 rue d'Amsterdam, 75–Paris 8. WTD in prep.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28430 — PORTUGAL — Surface active, finishing agents for the textile, leather industries. Sarcol Lda., Produtos (importer, agent), 138 Rua Brito Capelo, Oporto. WTD in prep.

28416—SWEDEN—Detergents for commercial cleaning. Lars Erik Niklason (importer, dist., agent), Arvid Mörnes väg 17, 161 59 Bromma. WTD 12/71.

Paints, varnishes, lacquers, enamels

28517—PORTUGAL—Cellulosic, non-cellulosic lacquers, pigmented, weatherproof, for exterior application. Costa & Ca. Lda., Mario (importer, agent), Rua do Almada 30-1°, Oporto. WTD in prep.

28518—PORTUGAL—Glazing compounds for exterior, weather-proof application. Costa & Ca. Lda., Mario (importer, agent), Rua do Almada 30-1°, Oporto. WTD in prep.

Gum, wood chemicals

28612—PORTUGAL—Natural dyestuffs extracts; natural tanning materials. Focor, Forncedora de Corantes (importer, agent), 288 Rua 5 de Outubro, Oporto. WTD in prep.

28612—PORTUGAL—Natural dyestuffs extracts; natural tanning materials. Imextil Lda. (importer, agent), Rua do Campo Alegre 298-3° Dto., Oporto. WTD in prep.

28612—PORTUGAL—Natural dyestuffs and natural tanning materials for the textile industry. Sarcol Lda., Produtos (importer, agent), 138 Rua Brito Capelo, Oporto. WTD in prep.

Chemical products

28930 — PORTUGAL — Special textile printing inks. Focor, Forncedora de Corantes (importer, agent), 288 Rua 5 de Outubro, Oporto. WTD in prep.

28930—PORTUGAL—Textile printing inks. Sarcol Lda., Produtos (dist.), 138 Rua Brito Capelo, Oporto. WTD in prep.

28993—NETHERLANDS—Water and effluent treating compounds; exclusive representations requested for the Benelux countries; or direct purchase. N.V. Handelsvereeniging v/h J. & W. Wegman, Attn: F. H. van Dam (importer, dist., agent), 3 Staalkade, P.O. Box 3356, Amsterdam. WTD in prep.

Fabricated rubber products

30698—NETHERLANDS—Seeks to represent U.S. producer of inflatable plastic-based structures for use in construction work under extreme climatic conditions. Agency and/or direct purchase for Benelux area. Handelmaatschappij N.V. Dix Attn: N. J. Dix, Mgr. (importer, dist./exporter, agent), 53 Oliemolenstraat, Uden. WTD 11/71.

Plastic products

30798—AUSTRIA—Bath room accessories of plastics materials. Correspondence requested in German. O. & M. Weber Ges.m.b.H. (importer, dist., agent), Gumpendorferstr. 147, A-1060 Vienna. WTD 12/71.

Steel mill products

33120—IRAN—Stainless steel, finished shapes, forms. Abzar Motor Co. Ltd.

(importer, dist., retailer), 564/566 Ave. Sepah, Tehran. WTD 12/71.

Cutlery, hand tools, general hardware

34211—SWEDEN—Scissors. Lars Erik Niklason (importer, dist., agent), Arvid Mörnes väg 17, 161 59 Bromma. WTD 12/71.

34233—SWEDEN—Hand tools for hobby articles. Lars Erik Niklason (importer, dist., agent), Arvid Mörnes väg 17, 161 59 Bromma. WTD 12/71.

Heating apparatus, plumbing fixtures

34320—AUSTRIA—Fittings and trim for bath rooms, showers, lavatories. Correspondence requested in German. O. & M. Weber Ges.m.b.H. (importer, dist., agent), Gumpendorferstr. 147, A-1060 Vienna. WTD 12/71.

Screw machine products

34521 — NETHERLANDS — Socket screws. N. V. Handelmaatschappij Douwes, Attn: D. F. A. Vermeer (importer, dist.), P.O. Box 774, The Hague. WTD 12/70.

Fabricated wire products

34811—IRAN—Wire rope, cable, ferrous, noninsulated. Abzar Motor Co. Ltd. (importer, dist., retailer), 564-566 Ave. Sepah, Tehran. WTD 12/71.

Fabricated metal products

34943 — NETHERLANDS — Butterfly valves; exclusive representations requested for The Netherlands. N.V. Ingenieursbureau Beta (importer, dist., agent), P.O. Box 1809, The Hague. WTD in prep.

Farm machinery

35223 — NETHERLANDS — Planting, seeding or fertilizing machinery for agricultural use; exclusive representations requested for The Netherlands. G. J. Vlogtman & Zn. C. V. (importer, dist., agent), 38 Dijkerhoek, Holten, Overijssel. WTD in prep.

35226—NETHERLANDS — Hay drying equipment; exclusive representations requested for The Netherlands. A. J. Vogelenzang N.V., Attn: A. H. Provoost (importer, dist., agent), 30 Wageningsestraat, P.O. Box 1, Andelst, Gld. WTD in prep.

35228—NETHERLANDS — Small agricultural machinery, equipment of a nonself-propelling type; exclusive representations requested for The Netherlands. G. J. Vlogtman & Zn. C.V. (importer, dist., agent), 38 Dijkerhoek, Holten, Overijssel. WTD in prep.

35222—NETHERLANDS—Agricultural, horticultural sprayers and other machinery; gardening equipment; exclusive representations requested for the Benelux countries. Saturnus N.V.; Attn: J. Stoof (importer, dist., agent), P.O. Box 49, Putten, Gelderland. WTD in prep.

35228—NETHERLANDS — Agricultural machinery, implements; exclusive representations requested for The Netherlands. G.W. van Driel & van Dorsten N.V., Attn: P. M. Lageweg (importer, dist., agent), 17 Stationsweg, P.O. Box 1, Hoofddorp. WTD 4/71.

35228—NETHERLANDS—Newly developed agricultural implements; exclusive representations requested for The Netherlands. O. de Leeuw Landbouwwerktuigen N.V., Attn: L. T. Rakers (importer, dist., agent), 15-17 Rieteweg, P.O. Box 68, Zwolle. WTD in prep.

35228—NETHERLANDS — Agricultural machinery, equipment. H.J. Hoegen Dijkhof Handelmaatschappij N.V. (importer, dist., agent), 20-26 Keppelseweg, Doetinchem. WTD in prep.

Construction, mining, materials handling machinery, equipment

35319—FRANCE—Rotary milling cutter trench diggers, dredging-machines, cleaners, cutters for the construction, maintenance of road ditches, pull-type models, by hydraulic drive or by farm tractor power takeoffs, slow speeds. Catalogs, price, delivery details requested. Quitté Roger (Ets.) (importer, dist., agent), 360 Avenue de Paris, 79, Niort. WTD 1/71.

35319—NETHERLANDS—Earth-moving equipment and machinery; exclusive representations requested for The Netherlands. G.W. van Driel & van Dorsten N.V., Attn: P. M. Lageweg (importer, dist., agent), 17 Stationsweg, P.O. Box 1, Hoofddorp. WTD 4/71.

35361—FRANCE—Forged parts, pulleys, hooks, muffles, rings, tenders, etc., for steel cables and chains used in lifting equipment. LEVAC (mfr., agent, retailer), 60 rue de Gerland, 69-Lyon 7. WTD in prep.

Metalworking machinery

35411—SWITZERLAND—Jig boring machines for the metalworking industry. Metalltechnik AG, Attn: Mr. Wettach (dist., agent), Badenerstrasse 682, 8048 Zürich. WTD 10/71.

35451—ITALY—Gun drills. Vanadium Utensili S.p.A. (importer, mfr., agent), Km 8 S.S. Moncalieri-Villastellone, 10024 Moncalieri (Torino). WTD in prep.

Special Action

Each of the following trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

38112—AUSTRIA—Wishes to represent U.S. producer of gas analyzers based on gas chromatographic principle; fully automatic, portable, battery-operated; to determine content of O_2, CO, CO_2, SO_2, SO_3, nitrogen and fluorine oxides in air and in exhaust gases with a temperature of up to 360°F. Automatic samplers for such equipment. AWIGA Ges.m.b.H. (importer, dist.), Albertgasse 40, A-1080 Vienna. WTD 4/71.

35316—NETHERLANDS— Wishes to represent US. firm making concrete gunning equipment for the manufacture of swimming pools. Agency and/or direct purchase for Benelux area. Handelmaatschappij N.J.W. Dix Attn: N. Dix, Mgr. (importer, dist./exporter, agent), 53 Oliemolenstraat, Uden. WTD 11/71.

34941—U.K.—Seeks to represent U.S. producer of industrial automatic control valves, hand valves for use in the heating, gas, chemical, refining industries. Alexander Controls Ltd. (dist., Mfr.), Reddicap Hill, Sutton Coldfield, Warwickshire, England. WTD 1/66.

35452—SWITZERLAND — Mechanical precision measuring tools and instruments to be used together with machine tools. Metalltechnik AG, Attn: Mr. Wettach (dist., agent), Badenerstrasse 682, 8048 Zürich. WTD 10/71.

35484—NETHERLANDS—Garage machinery, equipment; exclusive representations requested for the Netherlands. AMBI N.V., Attn: Mr. van Bussel (importer, dist., agent), 12 Mauritskade, P.O. Box 4144, Amsterdam. WTD 11/71.

Special industry machinery

35513—NETHERLANDS—Fruit, vegetable canning and packing machinery; exclusive representations requested for the Benelux countries. Technisch Handelsbureau Junior N.V. (importer, dist., agent), 10 Elementenstraat, P.O. Box 8006, Amsterdam. WTD 6/71.

35521—PORTUGAL—Textile finishing machinery. Special machinery for making non-woven fabrics and felts. Focor, Fornecedora de Corantes (importer, agent), 288, Rua 5 de Outubro, Oporto. WTD in prep.

35521 — PORTUGAL — Fiber-to-fabric textile machinery; bleaching, dying, finishing machinery. IMEXTIL Lda. (importer, agent), Rua do Campo Alegre 298-3°, Oporto. WTD in prep.

35521—PORTUGAL—Cloth cutting machinery. Jamoral Lda., Sociedade Importadora (importer, dist., agent), Rua Jose Falcao 158, Oporto. WTD in prep.

35521—PORTUGAL—Textile machinery, fiber to fabric, yarn preparing, fabric bleaching, dyeing, finishing machinery. Cloth cutting machinery. PROTEL, Produtos e Equipamentos Texteis, Lda. (importer, agent), Rua Julio Dinis 911-5° Dto, Porto. WTD in prep.

35522—PORTUGAL—Nylon travelers. FOCOR, Fornecedora de Corantes (importer, agent), 288 Rua 5 de Outubro, Oporto. WTD in prep.

35522—PORTUGAL—Aluminum parts, attachments, accessories for textile machinery. Sarcol Lda., Produtos (importer, agent), 138 Rua Brito Capelo, Oporto. WTD in prep.

35591—NETHERLANDS — Machinery, equipment for the chemical and petrochemical industries; exclusive representations requested for The Netherlands. AMBI N.V., Attn: Mr. van Bussel, (importer, dist., agent), 12 Mauritskade, P.O. Box 4144, Amsterdam. WTD 11/71.

General industrial machinery

35614 — NETHERLANDS — Special, small type air compressors, piston as well as diaphragm types; basic compressor only, without electric motor. Gebr. Creemers Attn: F. Creemers, mgr. (importer, dist./exporter mfr.), 121 Hoogstraat, Eindhoven. WTD 11/71.

35615—NETHERLANDS—Spray guns. Gebr. Creemers Attn: F. Creemers, mgr. (importer, dist./exporter, mfr.), 121 Hoogstraat, Eindhoven. WTD 11/71.

35615—NETHERLANDS — Chemical-resistant pumps, all capacities. A.F. Verder-Vleuten N.V. (importer, dist., agent), 23 Utrechtseweg, P.O. Box 1, Vleuten, Utrecht. WTD in prep.

35641—PORTUGAL—Blowers, exhaust fans, centrifugal, industrial type, with a minimum capacity of 500 cubic meters per hour. Guimaraes, Rene (importer, agent), 1207-1° Rua Santa Catarina, Oporto. WTD in prep.

35642—GERMANY—Equipment for air-cleaning, especially for dust control. Airfilter Co. GmbH (importer, mfr., agent), 2 Hauptstrasse, D-7107 Bad Friedrichshall, Baden-Wuerttemberg. WTD 11/71.

35690—PORTUGAL—Labeling, marking machines for wearing apparel industry. IPEX (importer, agent), 218 Rua Capitao Pombeiro, Oporto. WTD in prep.

35690—PORTUGAL—Cartoning banding, bundling machinery. Coraltex Algodoes e Texteis S.A.R.L. (importer, agent), 939 Rua Sousa Aroso, Matosinhos. WTD in prep.

Office, computing machines

35731—NETHERLANDS — Electronic computing equipment; exclusive representations requested for The Netherlands. C.N. Rood N.V. (importer, dist., agent), P.O. Box 4542, Rijswijk, Zuid Holland. WTD 9/71.

35731 — NETHERLANDS — Versatile data recorder or data-recording system, adaptable to the specialized requirements of custom-built electronic systems for industrial and marine use. C.S.I. Instrumentatie N.V., Attn: P. G. Kempers (importer, dist., mfr.), 53 Coornhertstraat, Vlaardingen. WTD in prep.

35733 — NETHERLANDS — Computer peripheral equipment. Techmation N.V., Attn: F. J. Perquin (importer, dist., agent), Building 64, Schiphol East, Amsterdam. WTD in prep.

Service industry machines

35820 — PORTUGAL — Special steam irons for all fabrics—natural and synthetic. Jamoral Lda., Sociedade Comercial (importer, dist., agent), Rua Jose Falcao 158, Oporto. WTD in prep.

35851—PORTUGAL—Industrial air conditioning units for textile mills. Imextil, Lda. (importer, agent), Rua do Campo Alegre 298-3° Dto., Oporto. WTD in prep.

35853—NETHERLANDS — Commercial refrigeration machinery to produce deep frozen vegetables, fruit. Technisch Handelsbureau Junior N.V. (importer, dist., agent), 10 Elementenstraat, P.O. Box 8006, Amsterdam. WTD 6/71.

35854 — PHILIPPINES — Compressors, refrigerating, 8″ x 8″/9″ x 9″/10″ x 10″, second hand. Alejandro U. Udani (agent), 27 Aramismis St., Project 7, Quezon City. WTD in prep.

35892—NETHERLANDS—Water treatment and sewage purification equipment; exclusive representations requested for The Netherlands; or direct purchase. N.V. Handelsvereeniging v/h J. & W. Wegman, Attn: F. H. van Dam (importer, dist., agent), 3 Staalkade, P.O. Box 3356, Amsterdam. WTD in prep.

35892 — SWEDEN — Floor scrubbing, polishing, waxing machines. Lars Erik Niklason (importer, dist., agent), Arvid Mörnes väg 17, 161 59 Bromma. WTD 12/71.

Electric transmission, distribution

36131—NETHERLANDS—Pressure and temperature switches, according to U.S. explosion-proof laws; exclusive representations requested for The Netherlands. Berg & Burg N.V., Attn: G. W. C. Broekhuis (importer, dist., agent), 5 Merwedeweg, Breukelen. WTD 2/71.

36113—NETHERLANDS—Electrical recording instruments for use with precision equipment for the measurement of liquid and gas flows; exclusive representations requested for the Benelux countries; or direct purchase. N.V. Handelsvereeniging v/h J. & W. Wegman, Attn: F. H. van Dam (importer, dist., agent), 3 Staalkade, P.O. Box 3356, Amsterdam. WTD in prep.

36122—PHILIPPINES — Transformers, electric power, 333 kva and above, second hand. Alejandro U. Udani (agent), 27 Aramismis St., Project 7, Quezon City. WTD in prep.

Electrical industrial apparatus

36212—PORTUGAL—Integral horsepower motors to operate fans and exhausts with a minimum capacity of 500 cubic meters per hour. Guimaraes, Rene (importer, agent), Rua Santa Catarina 1207-1°, Oporto. WTD in prep.

36231—IRAN—Welding machinery, accessories. Abzar Motor Co. Ltd. (importer, dist., retailer), 564/566 Ave. Sepah, Tehran. WTD 12/71.

36211—PHILIPPINES—Motors, electric, 150 hp and above, second hand. Alejandro U. Udani (agent), 27 Aramismis St., Project 7, Quezon City. WTD in prep.

36214—PHILIPPINES—Generator sets, 150 kw. and above, second hand. Alejandro U. Udani (agent), 27 Aramismis St., Project 7, Quezon City. WTD in prep.

Communications equipment

36622 — NETHERLANDS — Radio and television aerials; exclusive representations requested for the Benelux countries. Manufacturers' Centre Holland N.V., Attn: W. Huyboom (importer, dist., agent), 1 Javalaan, Baarn. WTD 12/71.

Electronic components, accessories

36792 — NETHERLANDS — Capacitors for electronic applications. Techmation N.V. (importer, dist., agent), Bldg. 64, Schiphol East, Amsterdam. WTD in prep.

36794—NETHERLANDS—Coils for electronic applications. Techmation N.V. (importer, dist., agent), Bldg. 64, Schiphol East, Amsterdam. WTD in prep.

36795—NETHERLANDS — Passive components for electronic applications; exclusive representations requested for The Netherlands. Technische Handelmaatschappij De Buizerd N.V. (importer, dist., agent), 193 Bezuidenhoutseweg, P.O. Box 2325, The Hague. WTD in prep.

Motor vehicles, equipment

37130—NETHERLANDS—Hydraulically operated tail-gate loaders for trucks; exclusive representations requested for the Netherlands. AMBI N.V.; Attn: Mr. van Bussel (importer, distributor, agent), 12 Mauritskade, P.O. Box 4144, Amsterdam. WTD 11/71.

37141 — NETHERLANDS — Accessories and small articles for the motor vehicle trade. H. J. Hoegen Dijkhof Handelmaatschappij N.V. (importer, dist., agent), 20-26 Keppelseweg, Doetinchem. WTD in prep.

Engineering, laboratory, scientific, research instruments

38112—NETHERLANDS—Scientific instruments for university, industrial laboratories; exclusive representations requested for The Netherlands. Pleuger Nederland, Attn: A. J. Goedkoop (importer, dist., agent), 165 Vlielandstraat, P.O. Box 44, Amstelveen. WTD in prep.

38112—NETHERLANDS — Scientific instruments for use in universities, hospitals, research laboratories; exclusive representations requested for The Netherlands. Firma J.J. du Mee, Attn: W. P. C. van der Kuylen (importer, dist., agent), 5a Gallenkamp Pelsweg, P.O. Box 71, Soest. WTD in prep.

38112—NETHERLANDS — Instruments for analytical chemistry. Techmation N.V., Attn: F. J. Perquin (importer, dist., agent), Bldg. 64, Schiphol East, Amsterdam. WTD in prep.

Instruments to measure, control, indicate physical characteristics

38213—NETHERLANDS—Gas and water analysis equipment for industrial use; exclusive representations requested for The Netherlands. Berg & Burg N.V., Attn: G. W. C. Broekhuis (importer, dist., agent), 5 Merwedeweg, Breukelen. WTD 2/71.

38213 — NETHERLANDS — Industrial process instruments; air and water pollution control instruments; exclusive representations requested for The Netherlands. N.V. Hitma, Attn: J. A. Schepers (dist., agent), 3 Jan Luykenstraat, Amsterdam. WTD in prep.

38216—NETHERLANDS—Small electrical measuring and controlling instruments; exclusive representations requested for The Netherlands. Technische Handelmaatschappij De Buizerd N.V. (importer, dist., agent), 193 Bezuidenhoutseweg, P.O. Box 2325, The Hague. WTD in prep.

38220 — NETHERLANDS — Automatic temperature controls; exclusive representations requested for The Netherlands. Berg & Burg N.V., Attn: G. W. C. Broekhuis (importer, dist., agent), 5 Merwedeweg, Breukelen. WTD in prep.

Musical instruments, parts

39310—NETHERLANDS — Musical instruments; exclusive representations requested for the Benelux countries. Manufacturers' Centre Holland N.V., Attn: W. Huyboom (importer, dist., agent), 1 Javalaan, Baarn. WTD 12/71.

Toys, amusement, sporting goods

39410—NETHERLANDS — Toys; exclusive representations requested for the Benelux countries. Manufacturers' Centre Holland N.V., Attn: W. Huyboom (importer, dist., agent), 1 Javalaan, Baarn. WTD 12/71.

Pens, pencils, office, artists' materials

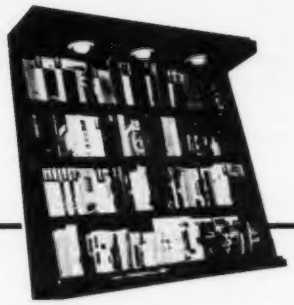
39530—PORTUGAL — Marking devices for use on fabrics and wearing apparel industry. FOCOR Forncedora de Corantes (importer, agent), 288, Rua 5 de Outubro, Oporto. WTD in prep.

39530—PORTUGAL—Felt tipped markers, other marking devices for use on fabrics and wearing apparel industry. PROTEL, Produtos e Equipamentos Texteis Lda. (importer, agent), Rua Julio Dinis 911-5° Dto., Oporto. WTD in prep.

39530—PORTUGAL—Felt tipped markers, other marking devices for use on fabrics and wearing apparel industry. IPEX (importer, agent), 218, Rua Capitao Pombeiro, Oporto. WTD in prep.

Costume jewelry, novelties, notions

39641—PORTUGAL—Zippers and slide fasteners. COELHO, Inacio (importer, agent), Rua de Sto. Antonio 95-2°, Oporto. WTD in prep.



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OFFICE OF THE SECRETARY

OMBE outlook. Nov. 1971. Monthly publication providing information on the program and activities of the Office of Minority Business Enterprise and others engaged in further opportunities for members of minority groups in the field of business. Free upon request.

DOMESTIC AND INTERNATIONAL BUSINESS

BUREAU OF DOMESTIC COMMERCE

Construction review. Oct.-Nov. 1971. Vol. 17, No. 10-11. Annual subscription $6.50 ($1.75 more for foreign mailing). Single copy 55¢.

Export control bulletin—supplement to Export Control regulations (ECB-OEC-55). Single copy 40¢.

BUR. OF INTERNATIONAL COMMERCE

Foreign Economic Trends

Annual subscription $15 ($6 additional for foreign mailing). Single copy 10¢.
Dominican Republic (ET 71-121). 8pp.
Germany (ET 71-122). 8pp.
India (ET 71-123). 12pp.
Costa Rica (ET 71-124). 8pp.
The Netherlands (ET 71-125). 12pp.
Malaysia (ET 71-126). 12pp.
Austria (ET 71-128). 12pp.
Finland (ET 71-129). 12pp.
Singapore (ET 71-131). 12pp. Supersedes ET 71-032.
France (ET 71-132). 8pp. Supersedes ET 71-057.
British Honduras (ET 71-134). 8pp. Supersedes ET 71-002.

International Marketing Information Services

Exhibitors Export Market Guide

Italian market for security equipment offers opportunities for U.S. sales (IMIS 71-044). 4 pp. 10¢.
Yugoslavia offers big market for food processing, air-conditioning equipment (IMIS 71-051). 8pp. 10¢.
Nordic electronics industry steps up demand for production/test equipment (IMIS 71-052). 4pp. 10¢.

Overseas Business Reports

Annual subscription $16 ($5 more for foreign mailing). Single copy 15¢.
Selling in the Democratic Republic of the Congo (Since renamed Zaire). (OBR 71-049).
Pharmaceutical regulations: Africa (OBR 71-046). 28pp.
U.S. foreign trade by quarters: July-Sept. 1969—July-Sept. 1971 (OBR 71-050). 28pp. 15¢.
Foreign trade regulations of Turkey (OBR 71-053). 8pp. Supersedes OBR 69-45.

World Markets for U.S. Exports

Pumps, valves and compressors—United Kingdom (IMIS 71-244). 12pp. 10¢
Pumps, valves and compressors—Mexico (IMIS 71-245). 12pp. 10¢.

ECONOMIC AFFAIRS

BUREAU OF THE CENSUS

Agriculture

Report on cotton ginnings prior to December 1, for the crop of 1971, by States: (A10: 71-9). 1p. 10¢.

Construction and Housing

1970 Census of Housing

Reports in this series present statistics from the 1970 Census by blocks on general characteristics of housing and population:

Orlando, Fla. urbanized area (HC(3)-48). 80pp. and 18 maps. $3.50.
St. Petersburg, Fla. urbanized area (HC (3)-50). 121pp. and 17 maps. $4.
Selected areas in Illinois (HC(3)-(74). 26pp. and 4 maps. $1.25.
Indianapolis, Ind. urbanized area (HC (3)-78). 118pp. and 19 maps. $4.
Portland, Maine urbanized area (HC(3)-104). 31 pp. and 10 maps. $2.
Worcester, Mass. urbanized area (HC(3)-117). 51 pp. and 23 maps. $2.75.
Lansing, Mich. urbanized area (HC(3)-125). 45pp. and 10 maps. $2.
High Point, N.C. urbanized area (HC(3)-169). 34pp. and 9 maps. $2.
Raleigh, N.C. urbanized area (HC(3)-170). 35pp. and 11 maps. $2.25.
Toledo, Ohio-Mich. urbanized area (HC (3)-187). 82pp. and 15 maps. $3.
Abilene, Tex. urbanized area (HC(3)-223). 34pp. and 9 maps. $2.
Harlingen-San Benito, Tex. urbanized area (HC(3)-233). 32pp. and 6 maps. $1.
Selected areas in Texas (HC(3)-249). 24pp. and 1 map. $1.
Value of new construction put in place: October 1971. (C30-71-10). Annual subscription including monthly and annual supplement $2.50. Single copy 25¢.

Distribution and Services

Monthly retail trade report: October 1971 (CB-71-380). 3pp.
Monthly wholesale trade: October 1971 (BW-71-10). Annual subscription $1.50. Single copy 15¢.
Weekly retail sales. Estimated weekly retail sales of retail stores in the United States week ending Dec. 18, 1971 (CB 71-376). 2pp. 10¢.
Canned food report—estimates of distributors' and canners' stocks—Nov. 1, 1971 (CB 71-381).

Foreign Trade

Imports—commodity by country: September 1971 (FT 135-71-9). Annual subscription $21 ($5.25 more for foreign mailing). Single copy $1.75.
Exports—commodity by country: September 1971 (FT 410-71-9). Annual subscription $33 ($8.25 more for foreign mailing). Single copy $2.75.
Waterborne exports and general imports: September 1971 (FT 985-71-9). Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.
Airborne exports and general imports: October 1971 (FT 986-71-10). Annual subscription $3 (includes FT 900, 975, 985, and 986 combined). Single copy 10¢.
Bunker fuels: October 1971 (FT 810-71-10). Annual subscription $1. Single copy 10¢.

Governments

Quarterly summary of State and local tax revenue: July-September 1971 (GT 71 No. 3). 8pp. 10¢.
State tax collections in 1971 (GF71 No. 1). 44pp. 50¢.
Holdings of selected public employee retirement systems: September 30, 1971 (GR71 No. 3). 1 p. 10¢.

Industry

Insulated wire and cable: 1970 (Series: MA-33L(70)-1). 12pp. 25¢.
Shipments of knit cloth, including interplant transfers: summary for 1970 (Series: MQ-22K(70)-5). Change Sheet.
Metalworking machinery: summary for 1970 (Series: MQ-35W(70)-5). 10pp. 25¢ per copy.
Backlog of orders for aerospace companies: summary for 1970 (Series: MQ-37D(70)-5). 8pp. $2.50 per year (incl. MA-37E and M37G), 25¢ per copy.
Fats and oils — production, consumption and factory and warehouse stocks: summary for 1970 (Series: M20K(70)-13). 1 p. (change sheet).
Shoes and slippers: summary for 1970 (Series: M31A(70)-13). 14pp. 15¢. $1.50 per year.
Annual survey of manufacturers: 1969 (M69(AS)-6.9). 36pp. 25¢. This report is a reprint of a chapter in the Annual Survey of Manufacturers: 1968 and 1969 volume.
Differences between incomes of white and Negro families by work experience of wife and region: 1970, 1969, and 1959: (Series P-23, No. 39), 16pp. 20¢.

Recent purchases of cars, houses, and other durables and expectations to buy during the months ahead: survey data through October 1971 (Series: P-65, No. 38). 18pp. 20¢.

Voting and registration in the election of November 1970: (Series P-20, No. 228). 64pp. 60¢.

Educational attainment: March 1971: (Series P-20, No. 229). 38 pp. 40¢.

Population

1970 Census of Population and Housing

Great Falls, Mont. standard metropolitan statistical area (PHC(1)-81). 48pp. 55¢. This report presents statistics by census tract on the characteristics of the population and housing units as reported in the 1970 Census of Population and Housing.

General Social and Economic Characteristics

Alaska (PC(1)-C3). 166pp. $1.25.

ECONOMIC DEVELOPMENT

Economic development. Vol. 8, No. 12. Annual subscription $1 (50¢ more for foreign mailing). Single copy 15¢.

SCIENCE AND TECHNOLOGY

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Environmental Data Service

Catalog of meteorological satellite data —ESSA 9 television cloud photography: Jan. 1-March 31, 1970 (Key to meteorological records documentation No. 5.325). 180pp. $2.

Environmental Research Laboratories

A program for calculating three-dimensional acoustic-gravity ray paths in the atmosphere (ERL 212-WPL 16). 48pp. 50¢. The ITS-Jones-Haselgrove ray-tracing program is adapted to calculate acoustic-gravity ray paths in a compressible atmosphere with arbitrary three-dimensional wind and temperature variability and spherical earth.

NATIONAL BUREAU OF STANDARDS

Engineering and instrumentation—Section C of the Journal of Research. Vol. 75C, No. 2. Annual subscription $5 ($1.25 more for foreign mailing). Single copy $1.25.

Martensite transformation detection in cryogenic steels (magnetometer development) (Tech. Note 613). 38pp. 40¢.

World index of plastics standards (Spec. Publ. 352). 458pp. $5.50.

Technical news bulletin. Vol. 55, No. 12. Annual subscription $3 ($1 more for foreign mailing). Single copy 30¢.

Specifications, tolerances, and other technical requirements for commercial weighing and measuring devices. National Bureau of Standards Handbook 44—4th Edition 1971. Supersedes Handbook 44—3d Edition. 212pp. $2. This Handbook supersedes the third edition, published in 1965, and amendments to the Handbook that were subsequently published in the form of Replacement Sheets.

Flame-resistant paper and paperboard (PS 46-71). 10pp. 10¢. Covers requirements and test methods for flame-resistant paper and paperboard which are 0.060 inch or less thick.

Building Science Series

Interrelations between cement & concrete properties—part 5 (BSS 35). 129pp. $1.25.

The effect of moisture on the heat transfer performance of insulated flat-roof construction (BSS 37). 81pp. 75¢.

Consumer Information Series

Facts about hearing and hearing aids (Series 4). 36pp. 60¢.

Tabulation of data on semiconductor amplifiers and oscillators at microwave frequencies (Tech. Note 597). 50pp. 50¢.

Methods of measurement for semiconductor materials, process control, and devices —quarterly report April 1 to June 30, 1971 (Tech. Note 702). 45pp. 50¢.

NATIONAL TECHNICAL INFORMATION SERVICE

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price for each document is $3 (microfiche 95¢) unless otherwise specified.

A study of markets for air pollution measurement instrumentation 1971-80 (PB-204 174). By Esso Research and Engineering for the Environmental Protection Agency. 97pp. Estimates the market for three types of instruments: ambient level monitoring, stationary source emission measurement, and auto exhaust measurement.

Fifty more timely problems of the environment (AD-732 679). By Rand Corp., 65pp. Problems discussed include noise pollution, arsenic in detergents and runoff waters, dispersal of stack gases, supersonic destruction of historic monuments, damaged food value of vegetable crops, limits of human tolerance for mercury content of foods, thermal pollution of lakes and rivers, pollution and heart disease, deep well waste disposal for water, and radiation treatment of sewage. Report is sequel to **Fifty environmental problems of timely importance** (AD-712 722).

Microfiche, microfilm and related equipment (AD-732 800). Defense Documentation Center, Alexandria, Va., 69pp. Report updates AD-675 300, dated July 1968.

Trends in the use of ferroalloys by the steel industry of the United States (PB-204 142). National Materials Advisory Board ad hoc Panel on Ferroalloys, National Academy of Sciences—National Academy of Engineering, Washington, D.C., 128pp.

Exhibits and testimony submitted to the Dept. of the Interior's hearing on the proposed trans-Alaska pipeline are available (PB-201 338 through PB-201 362). The hearings included testimony by members of Congress, conservation groups, Alaska officials and others concerned with the environmental impact that the proposed pipeline would have. Reports are available as a set of 23 volumes in paper copy at $115 or as a complete set of 25 volumes in microfiche at $23.75; order PB-201 338-SET. Individual volumes are available.

Trans-Alaska pipeline hearings, Vol. XII: supplemental testimony, exhibits 187-191 (PB-202 187). U.S. Dept. of Interior. 391pp. Paper $6.

A study of the impact of the proposed trans-Alaska pipeline on the Alaska native population (PB-204 441). Education Systems Resources Corp., Arlington, Va., for the Dept. of the Interior, 121pp.

Facts on mobile homes (PB-204 005). New York State Office of Planning Services, Albany, for HUD, 30pp.

National drug code directory tape extract (PB-203 888). (Supersedes PB-200 083), $55, 1 reel. Please specify tape recording mode desired: (1) 7-track, 556 or 800 BPI, odd or even parity, or (2) 9-track, 800 BPI, odd parity. The National drug code directory magnetic tape extract has been updated to include drug product information supplied to the Food and Drug Administration through September 1971 by drug firms cooperating in the implementation of the National Drug Code (NDC) System.

Automatic content analysis in information retrieval (PB-204 004). By Cornell U. for the National Science Foundation. 49pp.

Development and testing of efficient but less costly artificial kidneys (PB-203 957). By U. of Utah for the National Institute of Arthritis and Metabolic Diseases. 245pp.

Motor vehicle safety defect recall campaigns—detailed reports from July 1 to Sept. 30, 1971 (PB-204 227). By National Highway Traffic Safety Admin. 559pp. $6 (paper).

Color infrared (CIR) photography: a tool for environmental analysis (PB-204 472). By the U.S. Geological Survey. 42pp. Microfiche only.

Oil availability by sulfur levels (PB-202 281). By Bureau of Mines for the Environmental Protection Agency. 282pp. Presents data pertaining to the sulfur content of crude oil reserves, production, and selected refined products by geographical areas.

Resistance of filament-wound glass reinforced epoxy resin systems to outdoor weathering (AD-730 683). By Picatinny Arsenal, Dover, Del. 89pp.

OFFICE OF TELECOMMUNICATIONS

The monthly publication "Ionospheric Predictions" is replaced by this report consisting of four volumes. Volume 1 contains the charts, nomograms and instructions for estimating maximum usable frequencies from the reference set of maps in volumes 2, 3, and 4.

Ionospheric predictions—Volume 1 (TRER 13). 22pp. 30¢. Contains the estimation of maximum usable frequencies from world maps of MUF(ZERO)F2, MUF(4000)F2, and MUF(2000)E.

Ionospheric predictions—Volume 2(TRER 13). 437pp. $3. Contains maximum usable frequencies MUF(ZERO)F2, MUF(4000)F2, MUF(2000)E for a period of minimum solar activity, $R_{12} = 10$.

Ionospheric predictions—Volume 3(TRER 13). 437pp. $3. Contains maximum usable frequencies MUF(ZERO)F2, MUF(4000)F2, MUF(2000)E for a maximum solar activity period of an average solar cycle, $R_{12} = 110$.

Ionospheric predictions—Volume 4(TRER 13). 437pp. $3. Contains maximum usable frequencies MUF(ZERO)F2, MUF(4000)F2, MUF(2000)E for a maximum solar activity period of an above average solar cycle, $R_{12} = 160$.

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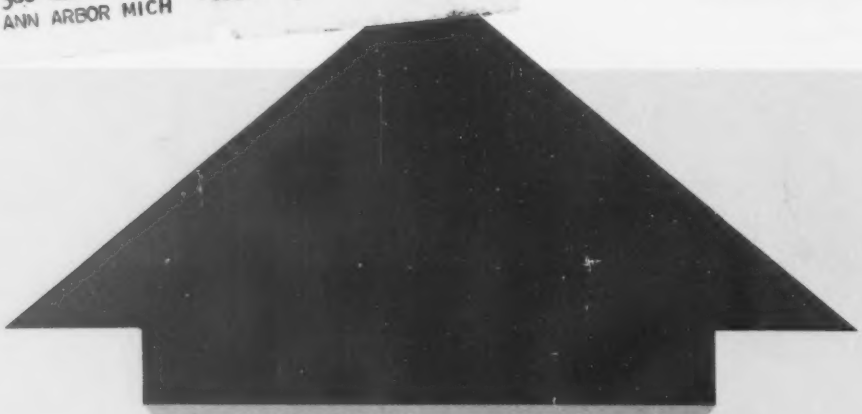

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